Part 2

Case Studies

A. HONDURAS

B. TRINIDAD AND TOBAGO

C. EGYPT

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An Evaluation of Impact on Performance in Honduras

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Training Health Care Providers in Interpersonal Communication: An Evaluation of Impact on Performance in Honduras

Introduction

Our study in Honduras had three specific goals: 1) to determine whether in-service interpersonal communication (IPC) training is deemed relevant and acceptable by health providers in a developing country; 2) to evaluate whether training could improve IPC practice as evidenced by a sample of routine medical visits; and 3) to determine the extent to which IPC training would affect patient satisfaction.

Methodology and Selection of Research Subjects

The study design called for a randomized pre-post design with a control and an experimental group. IPC performance was evaluated using interaction analysis of audio-taped clinical encounters. Patient perspectives were evaluated through exit interviews. Health provider perspectives about the relevance and utility of training were evaluated through a self-administered questionnaire followed by a participatory discussion.

1. Selection of Physicians

Assessment of IPC performance through audiotapes of clinical encounters. Fifty-eight health providers from the Ministry of Health and the Social Security Institute participated in the component of the study which assessed their IPC practice through audio-taping of clinical encounters. All providers were from one administrative health region, which includes the Metropolitan area of Tegucigalpa, Honduras' capital. Researchers randomly assigned providers to the two study groups. Organizational representatives then chose who would participate in the study based on interest of the provider and representativeness of the institution. (Fewer than 3 providers refused to participate in the study. An additional 4 providers were eliminated from the study because they could not participate in the assessment due to their schedules or administrative barriers.) Of those chosen, 30 were general practitioners, 13 were pediatricians and 6 were nurses. The sample selection process aimed to ensure the comparability of the experimental and control groups.

Evaluation of training and training content. IPC training was given to 87 trainees including the experimental group, the control group (after completion of the study) and an additional group of government health personnel who were selected to replicate future IPC training in Honduras. Training took place during 5 workshops that were held from

From left to right: Dr. Maritza Gómez, MOH Hospital Division; Dr. Sergio Carías, Metropolitan Region; Dr. Lilian Domínguez, QAP Project Coordinator and Dr. Victor Melendez, MOH Hospital Division discussing their roles as IPC co-trainers.

December 1993, through February 1994. Seventy-nine of the 87 trainees responded to self-administered questionnaires upon completion of the training course. At a later date, the survey was administered again and an evaluative discussion was held with 18 members of the experimental group.

2. Selection of Patients

Conditions for inclusion in the sample of audio-taped provider-patient encounters were: 1) the encounter must be the first consultation during the illness episode (follow-up visits were excluded); and 2) patients were seeking care for one of four pre-selected conditions (diarrhea or acute respiratory infection in children, and hypertension or diabetes in adults). For each provider who participated in the study, the first 4 or 5 encounters which met the above criteria were studied in the pre-test and post-test, resulting in a total sample of 225 pre-test audio-tapes (100 experimental and 125 control) and 221 post-test tapes (97 experimental and 124 control). The pre-test measurement was made during the week immediately before the IPC training, and the post-test was carried out during the week immediately following training. An exit survey was conducted with patients for each encounter. A small number of patients were unable or unwilling to respond to the exit interview, resulting in slightly smaller samples for the exit survey pre-test (n=220) and post-test (n=218).

3. Intervention

In December 1993 and January-February 1994 the same trainer from the Academy for Educational Development (AED) conducted all the IPC/QAP training workshops, including the two-day training for trainers. The objective of IPC training was to enable health providers to use interpersonal communication skills to improve patient satisfaction, compliance and health outcomes. The training model and strategies were adapted from a successful randomized clinical trial of IPC skills with physicians in the US. Each IPC training was conducted in three half-day sessions for no more than 20 participants. The course focused on communi-

Table 1: Summary of Interpersonal Communication Skills

Overall Socio-emotional Communication	Diagnostic/Problem Solving Skills	Counseling Skills
Welcome patient/ frame encounter	Listen attentively	Explore Client Beliefs
Use appropriate non-verbal communication	Encourage dialogue	Correct facts
Solicit feelings	Avoid interruptions	Use appropriate vocabulary
Show positive regard	Resist immediate diagnosis/ treatment	Present info in blocks
Give legitimation	Resist immediate follow-up by listening	Check patient under-standing
Show empathy	Probe	Recommend behavioral change
Reflect patient's emotions	Ask about causes	Repeat and summarize
Convey support and partnership		Motivate patient
Reassure patient		Check on acceptability and feasibility of treatment
		Confirm return visit
		Ask for questions

cation methods rather than messages, and the course content was based on the set of IPC behaviors that had been identified as potentially effective by the research team through meta-analysis and expert review. The skills can be grouped into three areas: overall socio-emotional communication (9 behaviors); problem solving skills (7 behaviors); and counseling (11 behaviors). A summary of these skills is presented in Table 1.

Participatory methods were essential to the effective delivery of the training. The training methods used included: 1) participatory plenary sessions that allowed participants to "discover" the new skills for themselves; 2) brief presentations about specific communication skills that included concrete examples of "do's" and "don't's"; 3) dynamic role plays; 4) video-tapes on non-verbal communication and counseling skills; 5) analysis of transcripts of local patient-provider encounters; 6) mental rehearsal techniques which allowed participants to experiment with the new skills and to determine how they could adapt them for their own use; 7) analysis of participants' own audio-tapes of patient encounters (Audio-tapes were analyzed and critiqued by peers, and specific feedback and suggestions were discussed about how to improve.); and 8) a job aid (pocket guide) developed by the research team to help the participants practice the skills and serve as a reference for later use. Each IPC behavior listed in Table 1 was presented, discussed and practiced during the training. From the outset the research team was concerned about adapting and applying the IPC skills in a culturally appropriate way. The team and the MOH also wanted to assure that technology transfer took place as a result of Honduran collaboration in the study. To address both of these

concerns, local trainers were involved in the review of training materials. To further support these goals, the training manual had a self-instructional design that could be used by a trainer with minimal experience. Also, nine local trainers participated in a two-day training-of-trainers session and assisted with the delivery of the course.

4. Measures

Three sources of data were used in this study: 1) audiotapes of clinical encounters; 2) patient exit questionnaires; and, 3) physicians' evaluation of the training.

Audiotapes. Changes in provider IPC practices were measured by analyzing audiotapes of clinical encounters, and comparing the performance of the trained and non-trained doctors. Audiotapes of the medical visit were coded by judges using the Roter Interaction Analysis System (RIAS). The system codes each phrase or complete thought in the visit, by either the patient or physician, in one of 34 mutually exclusive and exhaustive categories. In addition, coders rated the emotional tone of the visits (with regard to anger, anxiety, dominance, friendliness, and interest) on a six point scale after listening to the entire audiotape. As in several prior studies, the coding system demonstrated adequate inter-coder reliability. A random sample of 43 audiotapes coded by different coders had an average Pearson correlation coefficient of .83 for provider communication categories and .76 for patient communication categories. Where there were discrepancies, determination of which coder's data would be used for each discrepancy was made by random assignment.

Physicians assessment. A self-administered questionnaire for providers included 7 closed-ended questions which asked participants to rate course methods on a scale of 1 to 10. It also included 6 open-ended questions asking providers to identify what they liked most and least about the course, and asking them to identify which aspects of the course were most and least useful. Seven weeks after the first IPC training the perspectives of providers of the experimental group were evaluated again using a second self-administered questionnaire which asked an open-ended question about what they liked about the course, and then asked them to rate the frequency with which they used each IPC skill in their daily work on a scale of 1 (never) to 5 (always). Finally, they were asked whether they used the job aid (IPC pocket guide) always, sometimes, or never, and to list the reasons for use.

Exit questionnaires. A 16-item patient satisfaction scale was administered to patients immediately following their medical visit. These exit interviews focused on specific measures of patient satisfaction and patient perceptions about overall rapport and communication with the provider. Patient opinions were measured using a two-step Likert type scale which allowed the responses to be analyzed over a 5 point scale ranging from -2 to +2. Respondents were first asked to answer yes, no, or no opinion to a question about each parameter, such as, "Was the doctor (attentive, respectful, kind, etc.)?" If yes, the respondent was asked if they were "very" or "somewhat" attentive. If no, they were asked if they were "somewhat" or "not at all" attentive. In this way a 5 point scale (very positive, somewhat positive, no opinion, somewhat negative, very negative) was created for a respondent group in which other types of 5 point scale were not valid during the pre-test of the instrument.

Simulation: health provider-client interaction (problem solving)

5. Analysis

This study did not intend to establish a one-to-one correspondence among IPC skills emphasized in training, specific measures of IPC performance, and parameters of patient satisfaction. Rather, its aim was to train providers to use a cluster of IPC skills that work together to reinforce each other, and to measure the overall impact of these skills on provider performance and patient satisfaction. The rigorous study design, which included a control group and a short time frame, made it unlikely that confounding factors caused the observed changes in practice or satisfaction levels.

Results

Overall, the IPC intervention resulted in more communication by trained providers, and more extensive use of practices that enhance the effectiveness of communication. Further, patients responded to these improvements in communication skills by communicating more and disclosing more medical information. Finally, patient satisfaction ratings were higher for providers who had received the training, and patients perceived more informative behaviors in these providers. These results are described in detail below.

Changes in Communication Practices and Patient Satisfaction

While untrained providers averaged a total of 94.4 statements or utterances per encounter, trained providers communicated more, averaging 136.6 ($p = .001$). Positive talk by the provider (affirming statements of agreement or approval) was 15.93 for the trained group and 7.99 for untrained providers ($p = .001$); at the same time criticism and negative talk were less common in trained providers (.11 vs. .59, $p = .018$). Trained providers also used 3 times more emotional talk, expressing caring, concern and empathy more frequently (15.7 vs. 5.5, $p = .021$). Statements relating to procedures and instructions were higher for trained providers (19.7 vs. 11.2, $p = .032$), and they were also more likely to ask the patient if he or she understood instructions (9.1 vs. 3.7, $p = .025$). Medical counseling, arguably the

Table 2: Comparison of Communication Practices by Trained and Untrained Providers*

Communication Behavior	Trained (n=24)	Not Trained (n=8)	F	p value
TOTAL TALK	136.6	94.4	12.4	.001
Positive Talk	15.93	7.99	13.2	.001
Negative Talk	.11	.59	6.3	.018
Emotional Talk	15.7	5.5	6.0	.021
Social Talk	3.6	4.3	.4	.525
Procedural Talk	19.7	11.2	5.1	.032
Paraphrase	7.3	4.7	2.2	.148
Asks patient opinion	.8	.03	2.8	.104
Asks if patient understands	9.1	3.7	5.6	.025
Closed Questions	18.1	16.1	.2	.634
Open Questions	9.9	7.4	3.0	.092
Information Giving/Counseling				
Medical Info	18.9	14.7	1.9	.182
Therapeutic info	3.0	2.6	.6	.465
Lifestyle info	.7	1.4	1.8	.188
Socio-emotional info	.5	.1	1.9	.177
Medical counsel	17.3	11.3	5.5	.026
Socio-emotional counseling	.93	.95	.04	.833

*This table compares trained and untrained providers, reporting the average number of statements per encounter for each type of communication. Analysis was conducted using ANOVA with pretest as covariate.

most important information given to the patient, was given more frequently by trained providers (**17.3** vs. **11.3**, p =**.026**). A number of communication behaviors were unaffected by the training, including social talk, use of paraphrasing, and asking the patient about his or her opinion. Question asking behavior was also unaffected, although trained providers asked more open-ended questions than untrained at a level of marginal significance (**9.9** vs. **7.4**, p = **.09**). Finally, while trained providers gave more medical counseling, they were not more likely to give more information about medical issues, the therapy chosen, lifestyle issues, or socio-emotional counseling.

Improvements in provider communication resulted in a change in patient communication as well. Patients of trained providers spoke more overall (**113.8** vs. **79.6**, p = **.011**), used more positive talk (**17.8** vs. **11.6**, p = **.029**), and perhaps most importantly, gave more medical

Table 3: Comparison of Communication Behaviors by Patients of Trained and Untrained Providers*

Communication Behavior	Trained (n=24)	Not Trained (n=8)	F	p value
TOTAL TALK	113.8	79.6	7.3	.011
Positive talk	17.8	11.6	5.3	.029
Negative talk	.3	.6	.4	.530
Emotional talk	3.4	2.7	.59	.447
Social talk	2.9	2.8	.04	.833
Paraphrase	2.5	1.4	3.2	.082
Questions	2.8	2.3	1.5	.230
Information Giving				
Medical Info	54.7	41.7	11.5	.002
Lifestyle Info	6.5	7.3	.02	.889
Therapeutic Info	1.9	2.1	.01	.978

*This table compares patients of trained and untrained providers, reporting the average number of statements per encounter for each type of communication. Analysis was conducted using ANOVA with pretest as covariate.

information (**54.7** vs. **41.7**, p = **.002**). There was no significant difference in negative talk, emotional talk, social talk, paraphrasing, question asking, or the disclosure of information about lifestyle or therapy.

Patient satisfaction rates are reported in **4** categories: global satisfaction, positive behaviors (including concern, kindness, attentiveness, understanding, and whether the provider gave the patient opportunities to talk), negative behaviors (scolding, preoccupied/busy, arrogant, and whether the patient had issues or concerns that he or she was not able to discuss), and informative behaviors (clarity, encouragement, support, emphasis on compliance with treatment, attention to impact of illness on daily life). Trained providers received significantly higher ratings in two categories, global satisfaction (p. =**.01**) and informative behaviors (p.= **.045**). It is important to note that the changes in average scores on satisfaction are small because satisfaction is traditionally positively skewed, resulting in a small range of responses and smaller magnitude of variation. However, these small differences are statistically significant. Regarding patient perceptions of positive and negative behaviors for trained vs. untrained providers, there was no significant difference.

Provider Perspectives

Providers rated nearly all training components above **9** (on a **1** to **10** scale), indicating that providers found the training content useful and relevant for their work. When asked about what could be done to improve the course, the most frequent responses were **1**) practice

Table 4: Patient Satisfaction

Satisfaction Measure	Patients of Trained	Patients of Untrained	F	p value
Global Satisfaction	3.60	3.27	7.6	.010
Informative Behaviors	18.1	15.5	4.4	.045
Positive Behaviors	19.2	19.5	.1	.750
Negative Behaviors	2.67	2.85	.1	.700

*This table compares composite satisfaction scores in four categories based on a comparison of exit interview data from patients of trained and untrained providers. Analysis was conducted using ANOVA with pretest as covariate.

skills with real patients; 2) use more educational videos; 3) spend more time practicing skills; 4) develop more examples of care in urban settings; and 5) provide follow-up support.

In response to an open-ended question about which skills were most useful and relevant for their work, 53% of the trainees stated that all the skills were "most useful." Among the skills identified by 4 or more providers as useful were overall socio-emotional communication, counseling techniques, problem solving skills, skills for encouraging dialogue, and use of open-ended questions.

In a follow-up questionnaire administered 7 weeks after the course the health providers trained remained very positive about the training. When asked why they liked the course over 7 of the 18 respondents listed the following reasons: 1) it improves my relationship with patients; 2) it helps to organize my listening skills; 3) it emphasizes the human aspect of the work; and 4) it helps me deal better with clients. Other responses included improved organization, better non-verbal communication, improved counseling, more patient disclosure of information, and a better understanding of the clients' point of view.

When asked to assess the frequency with which they use IPC skills in daily work on a scale of 1 to 5, most behaviors fell in the 4.2-4.4 range. Welcoming the patient, using effective non-verbal communication, and using appropriate vocabulary were nearly always used according to provider self-reporting. Less frequent but still common practices (scoring 3.5-3.9) were repeating what the patient said to elicit more information, avoiding interruptions, and making concrete behavioral recommendations.

When asked about their use of the IPC pocket guide, 13 providers reported that they always used it, 5 that they sometimes used it and none reported never using the guide. Users said that it helped them to remember and improve skills, to apply skills, to get better organized during the encounter, to get more information from the patient, and to provide better care.

Discussion

IPC improvements on the part of providers tended to be related to skills that they already possessed but did not exploit fully. Increases in overall communication, procedural explanations, positive talk, and medical counseling, as well as decreases in negative talk are examples of this. These improvements were easier to attain because they were familiar to providers and were not controversial within the clinical paradigm.

Some IPC behaviors did not change in spite of training efforts. For example, the training encouraged providers to use more open-ended questions, ask about patients' opinions, and to discuss relevant socio-emotional issues and lifestyle, however, providers did not put these new skills into practice. This may be due to providers' hesitancy to contradict the paradigm of their medical training, which is based on technical expertise and authority, and an algorithmic approach to identify discrete symptoms and causes. Doctors may not have been convinced of the value of the more narrative style in which the patient gives opinions and information in his or her own way. Also, many felt time pressures because they are required to see a specified number of patients per hour, and were concerned that the patient would talk at length if given the opportunity. However, the use of open medical questions was marginally more prevalent among trained doctors (9.9 vs. 7.4, p. = .092) suggesting that trained doctors may have experimented with open-ended medical questions as a result of the training.

While changes in provider practice led to some improvements in patient communication, such as more overall communication and more disclosure of medical information, it resulted in no change in question asking, disclosure of life-style information, or discussion of the patients therapy. When given more of an opportunity to talk, patients focused on their medical condition and did not digress to less relevant topics, as some of their doctors feared they might. However, there are times when such lifestyle and social information can be very important in determining the diagnosis and the best course of treatment. This study suggests that a more direct intervention with patients would be needed if the goal of IPC efforts was to increase patient participation in the encounter more dramatically. For example, in addition to teaching doctors to be receptive listeners, it might be necessary to raise awareness among patients about their right to participate in decisions about their health and the importance of asking questions so that they understand what they need to know to safeguard their health.

Patient overall satisfaction and perceptions about the information they received from their doctors also improved as a result of the IPC training intervention. While satisfaction improvements were not documented across the board, the improvements that were realized could result in enhanced rapport and better compliance with treatment and follow-up appointments.

In addition to these statistically significant results and conclusions about communication, the study also provided a number of insights about how programs to improve IPC might be developed. It showed that IPC training is effective and feasible and can be institutionalized easily so that local staff can conduct the course. It was frequently mentioned by trainees and trainers alike that IPC skills should be included in the formal professional training received

by all health providers, and that in-service training should be made available. Further, providers and researchers alike felt that IPC training supports other efforts to improve quality of care. Other efforts include enhancing the quality of information upon which to base diagnosis and treatment, and enabling providers to more effectively deliver counseling messages.

In addition to showing that IPC training can lead to behavior change, the study showed that providers are receptive to receiving IPC training, find the content relevant, and are willing to put the new skills into practice. This is an important finding, underscoring that those who would promote IPC skills need not refrain from doing so for fear that health providers would resist such initiatives or refuse to participate.

While the above conclusions suggest that the quality of medical care in developing countries can be significantly enhanced by improving the counseling skills of providers, a number of cautionary comments must be made. First, the proposed "norms" for interpersonal communication must be further studied and validated. In order to do this the study design, instruments, and methods must be simplified to make developing country research feasible.

Also, cultural factors are extremely important in the communication between patient and provider. Thus, this study should be replicated in diverse cultural settings.

In addition to determining whether these results are generalizable across cultures, the impact of the communication intervention over time must be studied to determine how well new skills and practices are sustained.

Finally, and perhaps most importantly, methods for IPC assessment and improvement must be developed further so that they may become part of routine monitoring and quality improvement in health care facility. The design of practical job aids and assessment tools, and the implementation of simple, efficient methods of providing ongoing in service support are essential if the health benefits of improved patient provider communication are to be fully realized.

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Reference

1. Roter DL, Hall JA, Kern DE, Barker LR, Cole KA, Roca RP. Improving physicians' emotional distress: a randomized clinical trial. Archives of Internal Medicine 1995;155:1877-1884.

The Case of Trinidad and Tobago

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Training Health Care Providers in Interpersonal Communication: The Case of Trinidad and Tobago

Background

In 1993, the QAP solicited the collaboration of the Ministry of Health of Trinidad and Tobago in carrying out a training and research study to further validate the impact of improved provider-patient interaction. Official government approval was received in April 1994.

QAP/IPC activities in Trinidad and Tobago had two components: a health provider training program and an accompanying evaluation research component. The research component measured the impact of training on improved communication skills and on patient satisfaction. From the outset, activities were designed to be small-scale and simple. The objective was to validate established models, in particular the results of the more elaborate study in Honduras. No attempts were made to measure relationships between patient compliance with treatment regimes or with health outcomes. Because a link had been previously established between patient satisfaction and compliance and health outcome, this study was designed to only identify the relationship between IPC training and client satisfaction. If a statistical relationship between improved IPC and greater patient satisfaction can be established, it could then be inferred that improved client compliance treatment outcomes would also naturally ensue.

Design

Audio-taped physician-patient encounters recorded before and after a two-day IPC training session were used to measure the impact of improved communication skills on patient satisfaction. Patient satisfaction was evaluated on the basis of a 53-item exit questionnaire which took approximately 15-20 minutes to complete. The degree of overall satisfaction was measured in specific areas such as information access, perceived provider competence and interpersonal interaction. To relate physician skills to client satisfaction, questionnaires and corresponding encounters were paired. Physicians were also requested to complete a 13-item questionnaire following the completion of all pre-test audio recordings and patient interviews. Questions focused on demographics and on physicians' views on communication and barriers to patient compliance.

Audiotapes were analyzed using the Roter Interaction Analysis System. The system, developed by Dr. Debra Roter, encodes doctor-patient interactions in a set of categories. Coders rate specific "proficiencies," such as emotional tone, interruptions, appropriate language, etc.; code frequencies, clusters and ratios (e.g., physician and patient dialogue; open-ended

and closed-ended questions) then allow examination and assessment of the interaction. Changes in communication patterns can be assessed over time intervals.

Patient satisfaction surveys were analyzed using standard statistical analysis. Following intensive discussions and extensive pre-testing, it was decided that a four-point scale to measure satisfaction levels would be used (see discussion below). Pre-testing by two QAP/IPC specialists versed in the local culture was conducted to identify "local" words and word patterns comprehensible to a variety of respondents that could serve as evenly-spaced benchmarks on the scale. (Focus groups and interviews were exclusively used to validate the scale.)

Baseline Study

In addition to rigorous pre-testing of scales and assessment techniques, formal and informal meetings were held over a period of several days with colleagues, county medical officers and high-ranking ministry officials to review project objectives and organize field activities. A field team was selected, materials prepared, vehicles rented and letters requesting participation in the study and training drafted and hand-delivered to doctors in participating counties. Interviewers also underwent formal training which reviewed interview and other procedures, assessment techniques and logistics. A field practice in a health center located beyond the limits of the participating counties was also held.

Four interviewers and two international specialists, one from Trinidad, made up two work teams. The teams visited 23 doctors in three counties during chronic illness encounters or adult health clinic sessions, conducting a systematic selection of five chronic disease patients per physician. In two instances, when fewer than five chronic disease patients could be found, all chronic patients attending (four from each center in both cases) were included in the study. Visits were audiotaped and patients completed a satisfaction survey at the end of their visit. Doctors also completed a short, self-administered questionnaire at the end of the five-patient visits. Except for two physicians who refused to participate in the study, two who were on leave during the entire data collection period and one who was not scheduled for clinic visits, no problems or delays were encountered. The total number of participating physicians was 18, and the total number of interviews was 88.

Initial Findings

A preliminary review of the data indicated that the study was successful in achieving its goals. All audiotapes and exit interviews were completed, and the quality of the data collected was relatively clean. There was little variance in patient satisfaction data, with all patients being relatively satisfied with the treatment received. Patients did, however, express lower satisfaction in several areas, including a lack of confidence in providers, the thoroughness of exams and the treatment practices, areas which were emphasized in the training sessions.

Training

QAP training standards were adapted to prevailing conditions in Trinidad and Tobago. Shortcomings identified through patient questionnaires and audiotapes in pre-test evaluations received special emphasis during the study. Several pre-test audiotapes were transcribed for use in the study.

Training focused on introducing and practicing IPC skills associated with improved interactions, patient satisfaction, compliance and outcome. Specifically, training focused on three types of IPC skills: 1) socio-emotional communication, 2) problem solving, and 3) counseling. The specific behaviors associated with each category are outlined in Figure 1.

Figure 1: IPC Skills

I. Socio-emotional Communication: Verbal and Non-verbal

A. Verbal Communication Behaviors

1. Signaling Receptivity
   - Framing the encounter (using phrases which show general interest in the patient and set the stage for open communication)
   - Asking about feelings
   - Listening more/talking less
   - Following up on distress cues (both verbal and non-verbal)
   - Using conversation facilitators (ah-ha, I see, sure…) to encourage conversation
2. Demonstration of Positive Regard
   - Complimenting the patient's effort
   - Legitimizing (using statements to confirm the patient's actions, emotions or thoughts as understandable and normal; for example, "I can see why you're worried."…"Who wouldn't be afraid of cancer?"…"I've felt the same way myself.")
3. Expression of Mutual Feelings
   - Showing empathy (repeating what the patient says or giving a name to what the patient feels)
   - Demonstrating partnership/support (using statements such as "That must be uncomfortable."…"I hope that doesn't hurt too much.")
   - Using statements of concern or reassurance (for example, "This might hurt."…"I'll be gentle."…"Are you okay?")

continued

Figure 1: IPC Skills continued

B. Non-verbal Communication Behaviors

- Being aware of tone of voice (anger, anxiety, dominance, interest, friendliness and responsiveness)
- Avoiding interruptions, phone calls, questions from other clinic personnel unrelated to visit

II. Problem Solving

Though explicitly more cognitive than emotional, these behaviors carry emotional content through tone of voice and body language and are especially critical during history taking.

A. Identification of Patient Concerns

- Resisting immediate reaction to patient's initial concern (Patients are often reluctant to reveal the real reason for a visit. Research shows that second and third problems mentioned are often of equal or greater importance than the first.)
- Probing for additional concerns
- Asking open-ended questions about patients' complaints
- Using facilitators to encourage patient talk

B. Delineation of Problem

- Asking explicitly about problems or stresses in daily living
- Exploring the impact of the health problem and its symptoms on patient's life

C. Understanding of Patient's Perspective

- Probing for patient's understanding of the disease (including "folk" explanation of illness and treatment)
- Clarifying patient's expectations (What results does he or she expect from the medical visit?)

III. Counseling

A. Fulfillment of Patient's Informational Needs

- Asking about patient's understanding of his or her illness and monitoring accuracy
- Correcting misconceptions
- Summarizing key points and underlining the importance of the advice given

B. Provision of Counsel

- Giving concrete behavioral recommendations; convincing or motivating patient compliance; discussing impediments to carrying out treatment recommendations and strategizing how impediments can be overcome

In March 1995, two trainers and IPC specialists from Johns Hopkins University conducted the QAP Training in Interpersonal Communication Skills for Primary Care Physicians. The trainers used a training of trainers (TOT) model to encourage training beyond the scope of this small demonstration project. Health administrators expressed interest in extending the training to other counties and health sectors. This training format ensured that activities could continue with minimal external inputs.

Seven Medical Health Officers attended the two-day TOT session. The training of medical officers, scheduled to begin immediately after the TOT session, was postponed until the following week due to a sudden death of a family member of the principal trainer. The first day of training was attended by 22 officers and the second by 18, with the three counties being fairly evenly represented. Unfortunately, only seven of the eighteen doctors who took part in the baseline study attended both training days. The rescheduling due to the principal trainer's unexpected departure midway in the first week may partially account for this poor attendance. Supervisors of the attending public health physicians offered no additional explanations.

At the end of the session, 14 evaluation forms were collected in which participants commented on the following: likes and dislikes about the workshop, training methods they felt were most effective, aspects of training they believed to be most useful in their daily practice and advisability of recommending the training to other physicians and health workers in the Trinidad public health care system.

Evaluations were overwhelmingly positive. Most participants enjoyed the workshop, particularly the role playing and the interactive training style. With the exception of one participant who recommended a shorter training session, all others recommended a longer session, perhaps in a more secluded and spacious location. Some participants commented on travel time (up to three hours) needed to reach the training center. Little diversity was evident in participants' assessment of training methods and applicability of skills. Most felt the methods helped "a lot" or "significantly." Several participants suggested greater use of video feedback and visual aids. When assessing the usefulness of the skills in their practice, most physicians reported they would use the skills fairly or significantly often. All participants would recommend the training to colleagues, and 93% believed it should be offered to other health personnel.

Post-training Study

The relatively poor attendance at the IPC training by baseline physicians actually strengthened the study. Though only seven out of the original 18 doctors attended both training days, it was decided that the post-training evaluation would be carried out with as many of the original doctors as possible, thereby creating a control group of untrained doctors against which to compare the trained doctors.

Because of the low attendance of "baseline physicians" in the training, the design was further modified to evaluate the impact of skills training on the participants' private practices. (All public sector physicians also had private practices.) Eight doctors agreed to participate

in the modified study component which involved recording patient encounters and interviewing patients in both private and public settings. Five of the eight physicians participated in both days of training; the remaining three did not attended either.

The matrix below illustrates the modified design and the types of comparisons it entails. The issue of communication in the public and private sectors is of particular interest because inadequate medical counseling and communication in the public sector is frequently explained by "lack of time" or "too many patients waiting." Though not included in this case study, a private vs. public physician communication analysis would allow for a comparison between communication activities in different clinical settings.

	PUBLIC		PRIVATE	
	Experimental Group (# of MDs)*	Control Group (# of MDs)	Experimental Group (# of MDs)*	Control Group (# of MDs)
PRE-training	10	8	—	—
POST-training	9	6	5	3

*Five encounters were recorded and analyzed for each participating physician. Slightly fewer encounters were recorded per physician in private office settings.

Encounters, each involving five patients, were audiotaped for 15 (7 trained and 8 untrained) of the original 18 physicians. Of the remaining three, one was on sick leave, one on vacation leave, and one had been transferred to administrative duties.

Over the next three weeks, two teams of two interviewers each visited health centers in the three counties and audiotaped visits with doctors and five of their chronic disease patients. At the end of their visit, patients completed a brief satisfaction questionnaire, the same used in the pre-test study. Few problems were reported in the field, and 75 audiotapes and questionnaire forms were collected.

During the last week, the teams visited the private practices of eight trained doctors, audiotaping 20 physician-patient encounters and conducting patient exit interviews. It was not possible to record and interview five visits per physician as was done in the public sector, because of fewer private practice patients, many patient refusals to participate and more ineligible patients (those visiting for reasons other than chronic disease).

Results

Effects of Two-day Training on Physician Skills and Patient Satisfaction

A pre/post analysis of the audiotapes was made. Data analysis was based on post comparisons between trained and untrained physicians observed during 4-5 chronic care visits. In this analysis, pre-test scores were held constant to minimize the influence of pre-training differences among physicians. Results were compared with findings from the patient exit interviews, and patient satisfaction was correlated to individual physicians.

Trained physicians performed better, often statistically, in certain areas such as positive talk, attentive listening, open-ended questions and overall interaction with patients. More information was shared between physicians and patients within the context of a limited dialogue. There was no significant increase in counseling or lifestyle information, but a significant increase in psycho-social exchange. Increased use of positive talk and conversation facilitators enabled patients to more easily impart psycho-social information. This was evidenced by a significant increase in how much patients said and in the biomedical, lifestyle and psycho-social information they volunteered.

Medical visits with trained physicians tended to be longer ($p=.09$); the average visit with trained physicians lasted five minutes, while that with untrained ones lasted only three minutes.

Patients readily noticed the improvements in the doctors' skills. Overall performance ratings improved. Blind data coders noted that trained physicians were more friendly, responsive, sympathetic and less irritable and overbearing than untrained physicians ($p<.05$). Patients of trained physicians had overall ratings which evidenced higher poise, interest, friendliness and responsiveness than patients of untrained physicians.

Patient satisfaction was also evaluated and a significant bias in favor of the trained group of physicians at post-test ($p=.002$) was found. Preference for trained physicians is noteworthy since in the pre-intervention measure, there was a trend toward higher satisfaction among patients of untrained physicians ($p=.059$).

Results Derived from Pre-training Physician Questionnaires

To express their views on barriers to effective communication and patient compliance, all physicians participating in the pre-training data collection were asked to complete a brief questionnaire consisting of three open-ended questions and six demographic close-ended questions following all audio recordings and exit interviews. The questionnaire, which all physicians agreed to complete, provided for demographic information to be analyzed together with patient satisfaction questionnaires.

Most physicians in the pre-training were East Indian males (89%) who had been in the health service for more than 10 years (72%, with 39% having more than 20 years of public service). Most resided in the county where they worked (72%) and most supplemented their public health service with a private medical practice (72%).

Physicians were asked to identify the major difficulties in communicating effectively with their patients. Almost half (47.1%) attributed difficult communication to lack of adequate time and overcrowded clinics; a third (35.3%) to patient inclinations, beliefs, or education; and 12% to poor physician training or techniques.

When asked to name three items that would facilitate and improve their practice, physicians responded as follows:

Item	Percent *
Availability of medication	66.6
More time with patients/fewer patients per clinic session	66.6
Better working environment: enhanced facilities and more staff	61.1
More health education/improved patient compliance	44.4
Better ancillary/support services (labs, tests, etc.)	33.3
Other (better pay, more political support, etc.)	11.1

* Respondents were allowed up to three unprompted responses.

Finally, when asked why they thought it was difficult for patients to comply with their treatment regimens, physicians overwhelming blamed the unavailability of medication. All responses are indicated below:

Reason	Percent*
Availability of medication	94.4
Poverty (unavailability of money for medicines; poor home conditions)	27.7
Lack of health education/competing local beliefs	27.7
Overcrowded clinics	16.6
Other	11.1

* Respondents were allowed up to three unprompted responses.

Discussion

The significant changes and positive trends noticed in such a small sample are important. It appears that a relatively minor effort involving a two-day training program significantly improved health worker communication skills. The Trinidad findings support the QAP model predictions which hold that improved physician IPC skills can improve patient satisfaction. On the basis of this relationship we can infer that improved satisfaction leads to improved patient compliance and health outcomes.

Several questions still remain unanswered. Factors determining satisfaction may vary in different settings (inclusive of, but not limited to, public and private sector health delivery) and in various cultural contexts, as may the measure and expression of satisfaction.

For Any Number of Reasons, People May Have Difficulty Expressing Their Level of Satisfaction

1. Satisfaction is contextually relative. Little variance in expressions of patient satisfaction was evident in the pre-test. All patients were evaluated as being very much or somewhat satisfied on the basis of the different variables that together assess satisfaction. Yet, pre-test analysis of the audiotapes showed a number of shortcomings in the care patients were receiving. Shortcomings were also apparent from informal assessments and observations of clinic operations. Why then are patients satisfied with mediocre care?

All respondents received free medical care. Few had the option of private care. While they could choose any health center, their options were limited by financial and travel considerations. Unless they changed health center, patients had no choice in selecting a physician, as they quite literally took a number and waited for the next available physician. Therefore, most patients were "stuck" with the public health physician assigned to the center nearest their home. Patients were grateful for any care they received and, to a large degree, had few options. Their expressions of extreme satisfaction are, therefore, relative.

2. Factors that determine satisfaction for public health center patients in Trinidad and Tobago may differ from those identified in existing literature studies for private health sector patients in "developed" countries. Most tests of satisfaction presume that patients' involvement in their own healing process is a positive factor. Patient involvement, however, is a relatively new phenomenon in allopathic (or "Western" medicine). Consideration of behavioral and environmental influences is also a relatively new element of health therapy. For example, some people in Trinidad may, because of their cultural and/or educational background, expect their doctors to talk down to them (this may be viewed as a sign of an important and accomplished doctor), to do most of the talking (the doctor is the one who knows the most), etc.

Patients (clients) wait in turn to see a physician

To evaluate the relative importance of various variables, respondents were polled on the weight they assigned to diverse aspects of their interactions with doctors. Over 93% of respondents valued the following "very much":

- Doctor showing interest in what they had to say
- Doctors asking about their overall health well being
- Their understanding what the doctors tell them
- Doctors allowing them as much time as necessary to relate their health problems
- Privacy.

Other characteristics were rated as important but with greater variation. Two-thirds of the respondents found the following "very" important, and about one-fifth found them "somewhat important":

- Doctor noticing their feelings
- Doctor and patient mutually deciding on a treatment plan.

No variables were rated as "slightly important" or "not important at all." Whether this was a result of the methodology used, the survey's context or the reliability of the ratings is unclear. For example, over 93% of patients felt that privacy was very important during a medical visit and 98% believed they had utmost privacy during their visits. Yet, investigators attested to an extreme lack of privacy during many visits, with health personnel and patients frequently entering the doctor's office without even knocking. In some instances, only a curtain divided the examination room from other rooms in the health center. In two cases, the investigator observed rectal exams being performed without complete privacy. Clearly, respondents were defining privacy differently than investigators.

3. People may not feel free to express dissatisfaction. While the pre-training survey was being conducted, a popular columnist of one of the country's two news dailies coincidentally wrote a column on her outrageous treatment at a local public health center. She described the attending nurse's attitude and behavior as *abrupt, officious and hostile; face of thunder; absolute authority; decided to ignore me; cultivated lack of accountability*, and her own feelings as a patient as *struggling, fighting back my mounting temper, supposed to be humbly grateful, helpless*.

The journalist reported that she repeatedly tried to solicit the support of other waiting patients and to awaken outrage at their mistreatment—in her words, "to raise a populist rant." As no one responded to her appeals, she mused about why no one seemed bothered by the mistreatment, protested it or even noticed it. One explanation she offers is that of resignation (patients not bothering to complain about injustices that beset them or even realize they have rights to do so) and voluntary victimization. To that list, her baby-sitter added another—fear. Fear that in a small town on a small island, where one's health care options are restricted, people are '*fraid that the next time they go ther*', *the nurse go' spite them*.

Anecdotally, while supervising the pre-test field work, one of the principal investigators noted that numerous respondents were afraid to participate in the study because they feared some sort of retribution, such as loss of pensions or benefits, from the health center or the government.

Patient Satisfaction and the Availability of Medicine

Research and experience have shown that many developing country health center patients often equate "good care" or satisfactory treatment with receiving an injection or prescribed drugs. Patients depend on public health dispensaries for most prescribed medicines because they cannot afford to have what are considered extremely expensive prescriptions filled at private pharmacies. Informal interviews with health centers revealed that they were unable to keep their dispensaries stocked with even essential items throughout the year. Some centers had problems keeping stocked throughout the month, others described the problem as seasonal, and still others felt the problem was chronic. Cynics, including many patients and health personnel, believed that the only time the dispensaries were properly stocked with even essential medicines was around election time. As a result, investigators were curious to find out whether overall patient satisfaction was associated with the receipt of prescribed drugs. These analyses are still pending.

Improved Patient Outcome and the Availability of Medicine

There is a direct relationship between the ability to access prescribed medicines and improved health outcomes. Clearly, if patients cannot access medicines they cannot comply with treatment regimens and other than lifestyle changes "prescribed" as treatment. At the time of the patient exit interviews, only 12.3% of patients had received their prescribed medicine from the clinic dispensary. (Because some interviews were conducted while the patients were waiting to get their prescriptions filled, this percentage may actually represent a lower estimate.)

QAP interviewer conducts patient satisfaction interview following physician visit.

Doctors completing the physician questionnaire overwhelmingly identified lack of medicines as the main reason why patients failed to comply with treatment regimens, and availability of medicines as the main factor that would make their job easier.

Patient Satisfaction and Ethnic "Match" of Physician and Patient

The questionnaire in our study was designed to test whether satisfaction was related to the match in ethnic background of physician and patient. Trinidad and Tobago is a country of primarily African, East Indian and mixed ethnicities which is proud of the racial harmony achieved at institutional and social levels. Yet Trinidadians, like many others, appear to gravitate to those most ethnically similar to themselves.

Unfortunately, because of the small number of physicians of African descent (only 6% identified themselves as being of African descent) we were unable to detect any relationship between ethnicity and satisfaction. Whether a relationship exists still remains unclear.

Patient Satisfaction and Measurement Issues

As stated earlier, very little variance was detected in the responses on patient satisfaction. This was partly due to the relatively compressed scale range on which respondents were asked to grade their degree of satisfaction. (The larger the scale, the easier it is to detect variation in satisfaction.) Respondents were asked to rate questions in the following categories: very much, somewhat, slightly, not at all, or don't know. For instance, "*How much privacy would you say you had in today's visit? very much, somewhat, slightly, or not at all?*"

Because respondents had a limited number of choices, all but the really dissatisfied would end up responding "very much" or "somewhat," thus causing the data to cluster at the upper end of the scale. If responses to the pre-training survey tend towards the upper end of the satisfaction scale, then post-training evaluation can only pick up marginal improvements due

to measurement constraints, even if respondents perceive a difference in satisfaction due to improved communications with physicians.

Why then did we not construct a six- or seven-point scale? Our four-point scale was constructed after extensive pre-testing in the environment where we conducted our study. In a questionnaire administered by an interviewer, we found respondents could not handle more than four possible responses in an oral question, even when the response pattern is repetitive. When various visual aids were used in the pre-test phase to assist respondents with larger scales, respondents became confused when the number of options exceeded four. For these reasons, the survey design limited the range of responses, restricting their possible variance.

Given that the design limited our ability to measure changes in satisfaction, it is particularly promising to note that patients reported greater satisfaction from visiting trained doctors than untrained doctors.

Improved Physician IPC Skills, Patient Satisfaction and Length of Clinic Visit

The minimal training provided clearly improved physician IPC skills and skill improvements were significantly related to patient satisfaction. Visits of physicians who received the training lasted about two minutes longer than visits of untrained physicians. While two minutes may appear as a minimal increment, the span represents an approximate 60% increase in the length of the visit. Given that physicians and health officials already recognize that health clinics are overcrowded and that not enough time is allotted to each patient, a 60% increase in duration of visit would be hard to justify if other efficiencies could not be realized to offset the longer visit time.

Conclusion

The Trinidad study validated the findings of the QAP Honduras study, with both studies demonstrating that minimal training in IPC skills can have a significant effect on patient satisfaction. Building on an already established relationship, we can further infer that improvements in Trinidadian patient satisfaction will lead to improvements in patient compliance with treatment and related improvements in health outcome.

The QAP methodology offers developing country health planners a promising strategy to improve community health in an era of shrinking health resources. As discussed above, some questions still remain about the advantages of developing culturally specific satisfaction criteria and corresponding health communication skills.

Improving Patient Satisfaction in an Egyptian Public Hospital

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Training Health Care Providers in Interpersonal Communication: Improving Patient Satisfaction in an Egyptian Public Hospital

1. Background

May 15 Hospital, a 130-bed hospital located at the outskirts of Cairo, is the first public hospital in Egypt to implement a quality assurance program. Initiated in May 1993, the program targeted and prioritized several areas for improvement, one of which was the quality of customer services and patient satisfaction. For the past few years, administrators and other hospital personnel have received numerous complaints from patients and visitors about the poor treatment and lack of information they receive and the snags in processing patients in the hospital.

To solve these problems, the Quality Assurance Committee at May 15 Hospital undertook a three-part strategy consisting of:

1. the installation of a reception desk in the out-patient department to provide visitor information

2. the training of non-medical, front-line workers in the principles and techniques of quality customer service

3. the training of doctors and nurses in interpersonal communication (IPC) skills.

The Committee, together with the trained physicians, decided that after physician training follow-up activities should take place to ensure a greater impact on performance and to increase patient satisfaction.

This case study presents the IPC training of doctors and nurses and the follow-up IEC activities that took place six months after the training. A total of 49 physicians and 30 nurses participated in the training workshops. The training curriculum, used in other countries, was revised and adapted to the needs of Egyptian providers and their patients at May 15 Hospital. The same AED trainer who trained all the physicians in the Honduras study, trained the Egyptian physicians. An Egyptian medical doctor and an Egyptian nurse were trained to become co-trainers of these workshops. The medical doctor became the main trainer for the nurses who received a slightly different version of the course translated into Arabic and better suited to the nurses' needs and levels of interaction. Thirty nurses received IPC training between September 1994 and December 1994.

2. Training

Between July 1994 and January 1995, IPC training in three half-day sessions was offered five times to a total of 49 physicians. The training sessions were conducted at May 15 Hospital in Cairo and at El Quantara Hospital outside of Ismailia. The primary objective of the training was to improve the IPC skills of health providers in order to improve patient satisfaction, compliance and health outcomes. The course agenda is presented in Appendix B.

Participants in the training first agreed on a definition of IPC.[1] They then reviewed basic IPC concepts, such as non-verbal communication and language efficiency. The training activities focused on skills presented within three areas:

1) overall socio-emotional communication (building rapport and responding to clients' emotions: guidelines for talking with patients)

2) problem solving skills (gathering data to understand clients' situation and problems)

3) counseling and Information-Education-Communication (IEC).

The training course had a proposed list of skills or behaviors that the trainer introduced to the group (Table 1). Each behavior was discussed and then practiced in Arabic or English so that participants could improve or adapt them. The training activities employed a variety of training methods to ensure that participants developed these new skills, enhanced their sense of proficiency and applied state-of-the-art IPC techniques, building on their existing skills and strengths. Participants completed a two-page evaluation form at the end of each workshop session. The 46 physicians who completed the form were quite pleased with the course, especially with the instruction on IPC basic concepts, the use of non-verbal communication, the guidelines for communicating with patients and the instruction on providing counseling and information. They were also pleased with the role play/simulation exercises, the group work, and the use of video. Physicians mentioned that welcoming, listening to and empathizing with the patient, encouraging dialogue through the use of open-ended questions and avoiding premature diagnosis were among the most useful skills. Participants suggested that the IPC video developed in Egypt should be presented together with a video describing the desired IPC skills.

Participants asked that the course be given to the nurses and that follow-up activities, such as observations and discussions among the trained doctors, take place in order to reinforce the learned skills. They also suggested that the skills be practiced and observed with real patients. Overall, these results show that participants were highly satisfied with the content and methodology used during the course. They mostly liked the dynamics occurring between the trainers and participants, and found the exchange of ideas between colleagues quite enriching. They liked the atmosphere and the feeling that each of them contributed something to the course. They liked the atmosphere of mutual respect during the training and the

1. Interpersonal Communication is the face-to-face verbal and non-verbal information or feelings between two or more people.

Table 1: Interpersonal Communication (IPC) Behaviors

Overall Socio-emotional Communication

These nine behaviors reinforce ways to make people feel comfortable with their health care provider

- Welcome the person warmly in a culturally-accepted manner.
- Use appropriate verbal and non-verbal communication (gestures, mimics, words, the way you sit).
- Ask about the patient's feelings.
- Compliment the patient's efforts (for coming themselves or bringing their child to the encounter).
- Legitimize (reinforcing feelings that are normal).
- Show empathy.
- Reflect the patient's emotions to encourage him or her to speak more (echoing what patient has said).
- Be supportive and establish a partnership with the patient.
- Reassure the patient (helping the patient not worry by suggesting specific things he or she can do). It is the provider's tone of voice and attitude which mostly sets the tone of the social-emotional aspect of the encounter.

Problem Solving Skills

These seven behaviors help providers gather the information necessary for making a diagnosis. The systematic use of data-gathering skills enables providers to become more proficient.

- Listen attentively (actively).
- Encourage dialogue by asking open-ended questions.
- Avoid interruptions.
- Avoid premature diagnosis. (Do not diagnose the problem before finding out all the details.)
- Resist immediate follow-up by listening carefully before making clinical decisions.
- Probe or explore for more information.
- Ask the patient about causes, difficulties and worries related to the problem.

Counseling and Information-Education-Communication (IEC)

These ten behaviors are effective ways to explain health issues, treatment, and needed decisions.

- Explore and find out what the patient's understanding of his or her illness is.
- Correct any misunderstanding about the facts.
- Use appropriate vocabulary.
- Present and explain what the patient needs to know or do in a logical way (in blocks).
- Discuss and give concrete behavioral changes the patient can make.
- Repeat and summarize key information.
- Motivate the patient to follow the recommended treatment.
- Check on acceptability/mutuality of decision-making (whether the patient is willing to follow the treatment regimen).
- Make sure the patient knows when to return for a follow-up visit.
- Ask the patient whether there is anything else he or she would like to know.

seriousness displayed in the role-playing simulations. Often the simulations were taking place in Arabic, allowing the participants to be more real in their role-play. Twice, participants came to the trainer talking in Arabic...even though the trainer did not speak one word in Arabic! This anecdote shows the importance of letting the participants "control" the cultural interaction—the trainer noticed that if, between themselves, the participants had a doubt, they would in English or French, ask the trainer her opinion or advice.

3. Follow-up and Evaluation of IEC Activities

After the completion of all training courses in January 1995, the Egyptian trainer and QA consultant visited the May 15 Hospital several times to observe the physicians and discuss the different factors influencing their IPC performance. The group of trained doctors and other staff felt that an evaluation of the IEC effort would be valuable to determine whether the training had any discernible impact on performance.

The trained doctors agreed to be observed by colleagues and to be compared with non-trained doctors. This assessment was carried out in the out-patient department six months after the IPC training course. The methods, measures, results and conclusions are discussed below.

Methods

Six physicians were trained in the use of the observation check list; three of them had received previous IPC training and three were untrained. Five nurses were trained to administer the patient exit interview; three of these nurses had received prior IPC training, two had not. Over a period of thirty days, the observers gathered data about 23 trained and 25 untrained physicians, specializing in pediatrics, orthopedics, gynecology, internal medicine, and general surgery. Each of these physicians was observed in two to five clinical encounters. A total of 194 observations were made. The average time of encounters was ten minutes. Of the encounters, 66 were studied by two observers in order to assess inter-observer reliability. Exit interviews were administered to patients immediately after they left the physician's office. A total of 162 exit interviews were conducted. Because of time constraints or patient refusals, 32 interviews could not be conducted. Following observations, 53 provider interviews took place. The following table shows the overall observations made.

Number of Observations	
69	observations for 23 trained physicians
125	observations for 25 untrained physicians
194	total observations
53	provider interviews (only 48 were included in the study)
162	exit interviews

Measures

Three instruments were used: 1) an observation check list to assess physician performance; 2) a questionnaire for physicians which focused on assessing the value of the IPC training and asked physicians to assess changes in their own performance as a result of the study; and 3) a patient exit interview which focused on patient satisfaction.

Observation check list: Structured observation is a systematic way of keeping a simple count of specific observable behaviors. In this case, observations were done with the help of a check list. The check list recorded behaviors that the QAP staff expected to see during an encounter as a result of training. The behaviors observed were as follows:

1. **socio-emotional:** welcome patient, use positive non-verbal communication, repeat what patient said, show empathy

2. **problem solving skills:** encourage dialogue, ask what causes problem, avoid premature diagnosis, explore for more information

3. **patient counseling, information, education and communication:** present information in blocks, use appropriate vocabulary, give specific behavior recommendation, check acceptability of treatment.

The observation check list is presented in Appendix E, page E-13.

Physician questionnaire: The observed physicians were asked to complete a questionnaire after their monitored encounters. The questionnaire completed by trained doctors was slightly longer than that completed by the untrained group since the second part of the questionnaire focused on training outcomes. The physicians were asked to comment on what makes communication with patients difficult and what three things would help them improve the dialogue. Trained physicians were asked to name the most useful IPC skills they used during an encounter. The physician questionnaire is presented in Appendix E, page E-15.

Exit interview: Each patient received an exit interview. The questionnaire had 41 questions related to patient satisfaction and his or her relationship with the physician. Most patients responded to the questionnaire. However, some questionnaires were incomplete and therefore eliminated from the study. The exit interview instrument is presented in Appendix E, page E-17.

Results

A. Results of Observation

Based on the results of the observations, we cannot draw any conclusion about the impact of training, as the reliability test for observation failed. The intercoder reliability ranged from -0.10% to 0.55%, invalidating the analysis of the observations. The failure of the survey's methodology to identify differences in performance as a result of training could be attributed to several causes. First, the use of an observation check list for this IPC research was experi-

mental. We attempted to simplify the laborious coding methods that require audio-taping and coding of each utterance. While there might have been differences in performance, the resultant simplified instrument may not have been sensitive enough to detect them. Another factor which may have reduced reliability is that some of the observers did not have previous IPC training and did not receive adequate training in how to use the simplified instrument. This could have biased the observations and made the data statistically unreliable. Further, the sample size and method may have been inadequate to detect differences between groups.

In spite of the fact that the observational methodology employed was not reliable, we can say that the general attitude toward the IPC training was positive. The overall analysis of IPC skill performance shows that all physicians surveyed performed well in communicating with patients. Use of appropriate vocabulary was the skill that scored highest, with 93.3% of observed physicians using appropriate vocabulary with their patients. The lowest-ranking skills were "repeating what patient said" (59.3%) and "presenting information to patients in blocks" (51%).[2]

B. Results of the Provider Questionnaire

Fifty-three physicians completed a questionnaire at the end of the observed patient encounters. Of this group, 25 were trained physicians and 28 were not. Five physicians did not provide information about their IPC training and, therefore, were not included in the study.

Most doctors surveyed believed that the greatest obstacle in communicating with their patients is ignorance and low levels of education (45.3%). External interruptions and the lack of privacy were also frequently mentioned as obstacles, while 15% of the doctors did not believe they faced any difficulties. Physicians believed that a reorganization of the out-patient clinic would help them improve their services. Better equipment and facilities ranked second. Only a few physicians believed that IPC training would improve their performance. Lack of provider continuity was also perceived as an obstacle. Physicians felt that poor education was a barrier to patient compliance with prescribed treatment. All physicians cited lack of drugs and money to buy medication as important shortfalls.

Of the 25 trained physicians, 31% mentioned that a warm, appropriate welcoming of the patient really helped to improve the atmosphere of the encounter. More than 27% of the respondents mentioned that listening skills also improved interpersonal communication. Ensuring patient acceptance of treatment (16%) and showing empathy with the patient (11%) were equally important. Of the 25 trained physicians, 55% mentioned that they were still using the "job aid" pocket guide (see Appendix A) which helped them to frame the encounter and improve specific skills. All but one said they found it useful. Almost all of the skills were equally cited. All of the trained physicians agreed that, besides themselves and nurses, IPC training should be provided to other hospital personnel, including receptionists and orderlies in order to increase the overall quality of the hospital's services and to enhance team-

2. Presenting information in blocks refers to a communication technique where physicians present their message to patients in coherent and logical categories of care such as treatment, side-effects, follow up and diet. This technique is expected to provide patients with information in an orderly manner and assists them in recalling important messages.

work and spirit among the employees. It is interesting to note that, among the physicians in the group, trained physicians seemed to value and recognize IPC's potential for improving care. This indicates that the training did raise awareness about IPC and promoted a positive attitude toward developing IPC skills among physicians. Based on self-reporting, it seems that providers made efforts to incorporate the new IPC skills into their practices by using the skills and the job aid.

C. Results of Patient Exit Interview

An exit interview of 41 questions was given to 162 patients. Most often it was the patient's first visit with the doctor. The results showed no significant difference in satisfaction levels between patients of trained and untrained providers. Ninety-nine percent of the time, the patients expressed great satisfaction in the care they received. Patients felt they were welcomed (93.8%), received respect (93.8%) and were listened to attentively by their doctor (98%). Some patients expressed that they were often interrupted by external factors, such as someone entering the room. They mentioned that sometimes the doctors did "cut them short." They felt encouraged by their doctor to buy or take the prescribed medicine. They did not think it was important that doctors asked their opinion and feelings about their health problems, complaints and concerns. In general, patients noticed that on the day of the visit they were treated in a better way. Some patients mentioned that on that day they got more time, more explanation, and more care than usual. They all said they understood their doctor fairly well and that their doctor explained the treatment regimen fully. Overall, they were quite satisfied.

Conclusions and Lessons Learned

Based on these results, we cannot conclusively say that the IPC workshops given to physicians, nurses and the QAP staff in Egypt resulted in changes in performance or improved satisfaction. However, the training succeeded in raising provider awareness about the importance of communication and encouraged providers to develop and maintain their IPC skills on par with their clinical skills. Trained doctors suggested that the training course be given to more hospital personnel and that it be added to the university curriculum of medical students to allow them to provide better care.

Perhaps the most important implication of this study is the need to develop effective and sensitive evaluation methods so that differences between groups can be detected. The observation check list that we developed was not reliable, and we believe that further experimentation with check lists (and sampling) should be carried out before this method is abandoned or judged categorically unreliable.

This study also demonstrated that exit interviews may not be the best methodology to analyze patients' opinion about the care they receive. In the Egyptian culture, patients are not used to being asked about their opinion and may have been trying to be cordial to the interviewers and to the physicians. Focus group discussions may prove to be a better approach for analyzing patients' opinion. This study demonstrates the need to improve research design methods to help us better analyze quality-related problems and be able to improve them.