Computers in the Exam Room— Friend or Foe?

By Ward R Mann, MSN, FNP
Joanne Slaboch, MBA

At first, it might be hard to imagine how using an electronic medical record in your practice and in the exam room could improve communication with patients. In fact, it may be easier to see the computer as just another thing that gets in the way of our having meaningful interactions with patients—a third wheel, so to speak. Because patients view communication as the most important factor in the clinician-patient relationship, we certainly don't want to compromise it in any way.[1] Does the computer in the exam room assist or hinder good clinician-patient communication?

The Experience

Our experiences in Kaiser Permanente's Northwest and Colorado Regions have shown that patients give a positive rating to clinicians' use of computers in the exam room. Initially, clinicians experienced a period of time in which they were not as efficient as they were with the paper record. There might be some discomfort with the new equipment, with necessary new computing skills, with the changes in workflow and, importantly, discomfort in the conversations with members related to the computer.

We learned that this discomfort fades as confidence is gained in new skills, in a sense of consistency and reliability about critical patient data, and in satisfaction with the comprehensive level of care that the clinicians are able to provide. The information available from computers

helps to demonstrate comprehensive knowledge of the patient. Additionally, exam room computing helps involve patients in decisions about medical care, something patients highly value. As reflected in the chart, A Synthesis of Recent Evidence (Figure 1), shows ample evidence that exam room computing can enhance the overall clinician-patient interaction in the exam room.

Personal Challenges

What about you and your practice? How are you supposed to maintain good communication with

Table 1. Interregional Clinician-Patient Communication HealthConnect work group members
Sara Faulkner, MD (Group Health)
Rich Frankel, PhD (Indiana University)
Diana Burks-Goodman, MPA (Southern California)
Jim Hardee, MD (Colorado)
Charles James Kinsman, BA (Garfield Memorial Fund)
Peggy Latare, MD (Hawaii)
Maureen Leahy, MBA, MPH (Mid-Atlantic States)
Ward R Mann, NP, Chair (Northwest))
Debra Mipos, MPA (The Permanente Federation)
Jan Nedin, MS, CCDC, CEAP (Ohio)
Vivian Nagy, PhD (Southern California)
Joanne Slaboch, MBA (The Permanente Federation)
Sue Hee Sung, MPH (Garfield Memorial Fund)
Richele Thornburg, MS (Hawaii)
Robert Tull, PhD (Group Health)
Elizabeth Wu, MA (Southern California)

Ward R Mann, MSN, FNP, (right) is a clinician and consultant for NWP in Portland, OR. Most recently he's helped to create curriculum for regions to use as they implement KP HealthConnect. E-mail: ward.r.mann@kp.org.
Joanne Slaboch, MBA, (left) has been a Project Manager for the Care Experience Council since 2001, focusing on issues related to technology-enabled cared. E-mail: joanne.m.slaboch@kp.org.

Special Feature
IMPLEMENTATION

your patient and deal with this new "thing" in the exam room? Will you be able to make eye contact and type your note? Will you be able to keep the patient involved and not be distracted by the computer? Will you remember to secure the screen? Sound a little overwhelming? We believe that you will find the following s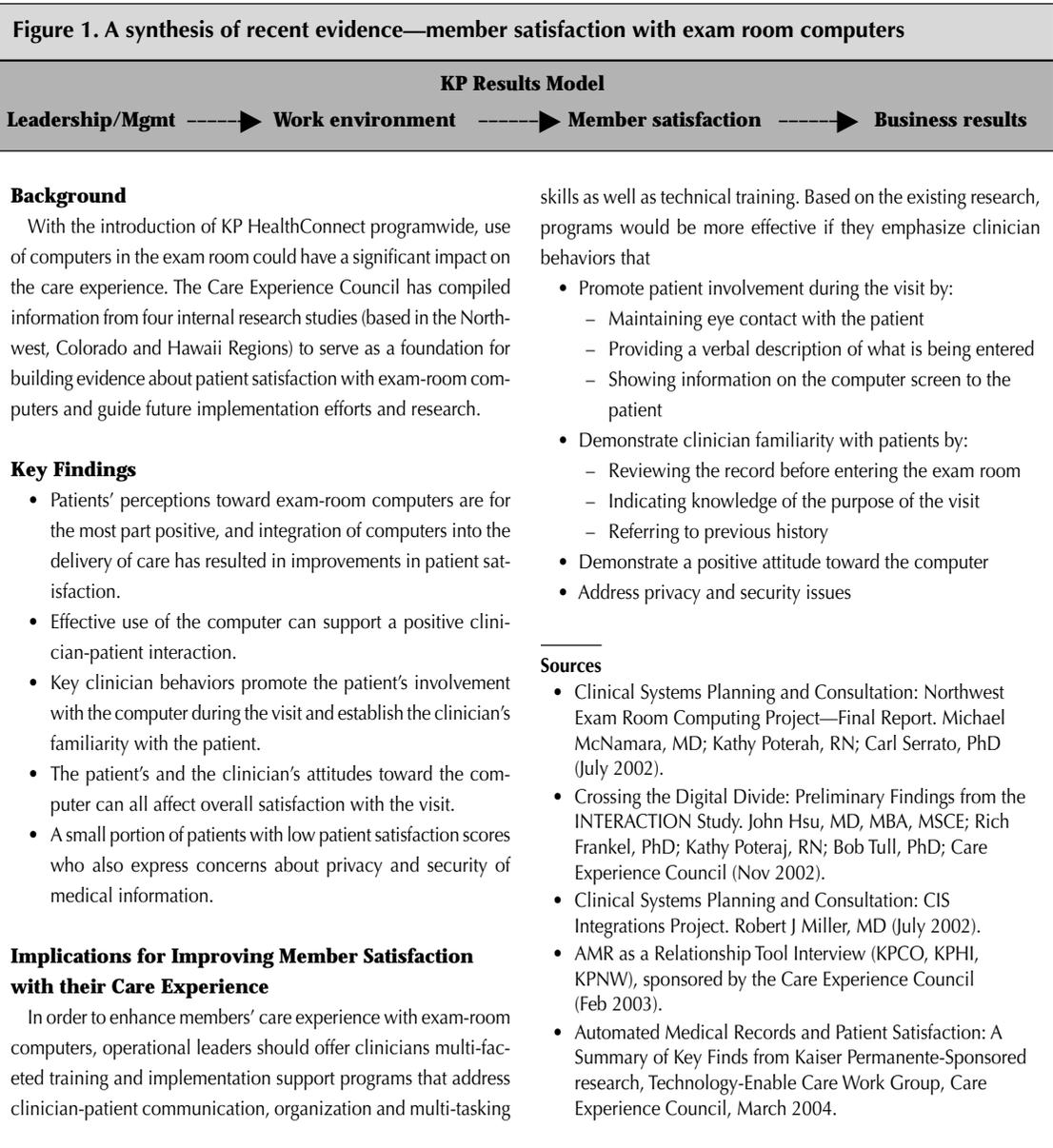uggestions helpful to make certain that the computer becomes a solid friend of yours in the exam room, and definitely not a foe.

Solutions

The Interregional Clinician-Patient Communication (IRCPC) Leaders of Kaiser Permanente (Table 1) have pooled their collective experience and understanding about clinician-patient communication and exam room computing. As a result they have identified five key communication behaviors to foster smooth integration of computers into practice:

Let the patient look on
Eye contact with the patient
Value the computer as a tool
Explain what you are doing
Log off and say you are doing so

The accompanying chart, Do Your LEVEL Best With the Computer in

---

Figure 1. A synthesis of recent evidence—member satisfaction with exam room computers

KP Results Model

Leadership/Mgmt ------▶ Work environment ------▶ Member satisfaction ------▶ Business results

Background

With the introduction of KP HealthConnect programwide, use of computers in the exam room could have a significant impact on the care experience. The Care Experience Council has compiled information from four internal research studies (based in the Northwest, Colorado and Hawaii Regions) to serve as a foundation for building evidence about patient satisfaction with exam-room computers and guide future implementation efforts and research.

Key Findings

- Patients' perceptions toward exam-room computers are for the most part positive, and integration of computers into the delivery of care has resulted in improvements in patient satisfaction.
- Effective use of the computer can support a positive clinician-patient interaction.
- Key clinician behaviors promote the patient's involvement with the computer during the visit and establish the clinician's familiarity with the patient.
- The patient's and the clinician's attitudes toward the computer can all affect overall satisfaction with the visit.
- A small portion of patients with low patient satisfaction scores who also express concerns about privacy and security of medical information.

Implications for Improving Member Satisfaction with their Care Experience

In order to enhance members' care experience with exam-room computers, operational leaders should offer clinicians multi-faceted training and implementation support programs that address clinician-patient communication, organization and multi-tasking skills as well as technical training. Based on the existing research, programs would be more effective if they emphasize clinician behaviors that

- Promote patient involvement during the visit by:
  - Maintaining eye contact with the patient
  - Providing a verbal description of what is being entered
  - Showing information on the computer screen to the patient
- Demonstrate clinician familiarity with patients by:
  - Reviewing the record before entering the exam room
  - Indicating knowledge of the purpose of the visit
  - Referring to previous history
- Demonstrate a positive attitude toward the computer
- Address privacy and security issues

Sources

- Clinical Systems Planning and Consultation: Northwest Exam Room Computing Project—Final Report. Michael McNamara, MD; Kathy Poterah, RN; Carl Serrato, PhD (July 2002).
- Crossing the Digital Divide: Preliminary Findings from the INTERACTION Study. John Hsu, MD, MBA, MSCE; Rich Frankel, PhD; Kathy Poteraj, RN; Bob Tull, PhD; Care Experience Council (Nov 2002).
- Clinical Systems Planning and Consultation: CIS Integrations Project. Robert J Miller, MD (July 2002).
- AMR as a Relationship Tool Interview (KPCO, KPHI, KPNW), sponsored by the Care Experience Council (Feb 2003).
- Automated Medical Records and Patient Satisfaction: A Summary of Key Finds from Kaiser Permanente-Sponsored research, Technology-Enable Care Work Group, Care Experience Council, March 2004.

the Exam Room (Figure 2), applies these five communication behaviors and details some recommended actions to use and scripts to say to effectively integrate the computer into your exam-room interaction with your patient. The IRCPC has developed five courses to help clinicians and support staff integrate the computer into the patient visit using these LEVEL skills (Table 2).

By including a few new communication behaviors into everyday practice, a computer in the exam room will enhance the overall care experience for the patient. ❖

Reference
1. Worthlin Group. Communication and the physician/patient relationship: a physician and consumer communication survey. West Haven (CT): Bayer Institute for Health Care Communication; 1995.

Table 2. Courses for clinicians and health care team members

Introduction to CPC Issues and Future Support	10-15 minutes
LEVEL Tips for Technical Training	5-15 minutes
Connected Communicating and Computing in the Exam Room Web-Based Training Course http://internal.or.kp.org/cis/training/erc.html	30 minutes
CONNECTED CONDENSED	a two-hour workshop session
Course for Exam Room Coaches RECONNECTED	

Figure 2. Do your LEVEL best with the computer in the exam room

Skills	Actions	What to say
Let the patient look on	• Move the screen for patient to see. • Invite the patient to move closer to the screen to view information. • Ask the patient to verify information as you type. *(This builds trust, actively involves the patient, and demonstrates "we know you.")*	*"Let's look at the lab results to see how your cholesterol is doing."* *"Let me show you this part of the medical record so we can confirm some information together."* *"Here are the injections we have in our records. Have you had other injections outside KP that we need to add?"*
Eye contact with the patient	• Greet the patient. Make a personal connection away from the computer • Keep that connection throughout the visit by: 　- Maintaining eye contact with the patient. 　- Turning toward the patient when the patient speaks or engaging in conversation. *(Maintaining eye contact promotes active involvement.)*	*"Good morning, Mr Jones. I see you hurt your ankle."* *"Let's spend a few minutes discussing your options."*
Value the computer as a tool	• Acknowledge the computer. • Let the patient know how the computer improves care. • Stay positive when faced with computer challenges. *(From the patient's perspective, great medical technology is equated with great medical care.)*	*"The computer makes getting and sharing information with other health care team members so easy and efficient."* *"This computer is great. I have all your background information at my fingertips—medications, prior visit notes, and lab results from all KP visits."*
Explain what you are doing	• Keep the patient informed about your thought process and actions. • As you are documenting, let the patient know what you are doing—entering information you have just discussed, ordering lab tests/medicines, accessing patient information. *(Patients who receive no explanation about what you are doing may think you are working on unrelated business.)*	*"I am printing some instructions, which we can go over together in a moment."* *"I am recording the details of your sore throat so our records will be complete. I'll order the medication we just discussed, so it will be available at the pharmacy."* *"I'll add the leg swelling to your problem list, so we can keep it in mind for future visits."*
Log off and say you are doing so	• Tell the patient that you are "logging off the computer" to safeguard their information. *(Some members are concerned about privacy and confidentially. If their concerns are not addressed, satisfaction may decrease.)*	*"I'm logging off the computer now to keep your information private."*