



IxResearch Briefing: August 2006

A Tailored Information Therapy System for Diabetes Management

Objective:

To evaluate a Web-based management system that collects diabetic patients' medical data and education materials (given at the hospital), and files this content into electronic folders on the Web, which allows patients to access this content after they have left the hospital.

Background:

274 type-2 diabetic patients were split into intervention and control groups to test the effectiveness of the Patient-Oriented Education Management (POEM) system on several clinical measures of diabetes. The POEM system includes a Web browser for patients, a patient-oriented medical care data organizer that consolidates a patient's medical data in a hospital, and a Web server that is an online repository and service provider of these files. In addition to file management, POEM "educators" monitor a patient's health status through a system of alerts and reminders which triggers an email to the patient when a test result is outside the normal range.

Findings:

- The most important health information features for these diabetic patients were having their complete medical data and comprehensive explanations of prescribed medicines
- Patients who used the POEM system were better able to manage their diabetes, which resulted in better control of their fasting blood glucose, HbA1c and total cholesterol levels.
- Patients on the POEM system used the online resource throughout the entire study period. During the first month, users logged into the POEM system an average of 9.6 times and logged in an average of 8.5 times per month for the 8 remaining months of the study.
- Participants with a higher level of education used the POEM system on a more frequent basis.
- Age had a direct relationship with usage as younger participants logged in more frequently.
- Patients were motivated to use the POEM system to manage their diabetes because it presented medical data that reflected their true health status, provided educational materials that met specific needs and because it sent reminders over multiple channels.

Ix Implications:

- Educational materials designed to meet a patient's specific needs and based on their specific medical data can motivate consumers to use an online system to help manage their diabetes.
- Effective management of diabetes through an online system that allows consumers to access targeted health information when they want it can result in improved health through better control of fasting blood glucose, HbA1c and total cholesterol levels.
- Online file management systems offer an inexpensive way to extend health education beyond the office encounter and are particularly effective with young, educated Internet users.

Citation:

Chen PL, Lee TI, Liu CT, Yeh YT. Development and evaluation of a patient-oriented education system for diabetes management. International Journal of Medical Informatics 2006:

www.intl.elsevierhealth.com/journals/ijmi.

Patient-Provider Communication After an Adverse Event

Objective:

To explore how information therapy strategies can support positive communications with patients after an adverse medical event has occurred, thus reducing one's malpractice risk.

Background:

In a focus group setting that used a semi-structured guide, sixteen participants described their perspectives of patient-provider communications after an adverse medical event had occurred.

Findings:

- After an adverse medical event patients experience physical, emotional and financial trauma. However, their anger is motivated more by how they are treated, rather than the error itself.
- The level of emotional trauma has an inverse relationship with the level of positive communication a patient has with their provider. Patients who were treated respectfully in their communications experienced much less emotional trauma.
- Many of the participants reported that their financial dilemma was the most traumatic issue.
- When there was positive communication, patients perceived their medical error as a "no fault" event. When there was poor communication, patients saw their doctor as incompetent and their actions resulting from malicious intent.
- After a medical error, patients reported feeling alone and lacking critical information to help them understand what they were going through. They became frustrated and had an eagerness for confrontation when their information needs were not being met. However, if adequate information was given to them, patients reported feeling tremendous relief.
- To improve the medical error resolution process, the study participants recommended that providers conduct a full assessment of aftercare needs to assess the need for short and long term support for the physical, emotional and financial trauma. In addition, they suggested that an impartial ombudsman (who is not associated with the providers) should help guide the patient through their initial confusion and aftercare.

Ix Implications:

Information therapy can help mitigate the liability from an adverse medical event by supporting positive patient/provider communications. Specifically, providers should strongly consider:

- Issue a sincere, immediate apology and explain what is being done to prevent a reoccurrence.
- Quickly and confidently reassure patients of their pressing concerns, which typically include concern over what is happening, what is next and will he/she return to their former self.
- Communicate in a respectful and caring manner.
- Offer to provide continuity of care in order to maintain a therapeutic relationship.

Past work at the IxCenter has shown the importance of Ix in preventing adverse effects and mitigating liability. IxAction member, Emmi Solutions, has developed tools and insights in this area, which can be found in the October 2005 and May 2006 IxInsights Publications.

Citation:

Duclos CW, Eichler M, Main DS, Pace W, Staton EW, Taylor L, Quintela J. Patient perspectives of patient-provider communication after adverse events. *International Journal for Quality in Health Care Advances*. 2005 17(6):479-486.

Culturally Congruent Information Therapy

Objective:

Prescribing culturally congruent information therapy requires attention to a range of issues, including language barriers, cultural appropriateness and communication of medical issues.

Developing a Common Understanding of Medical Issues:

- People of different cultures perceive the meaning of certain illnesses differently. The following questions can elicit from patients what they perceive the meaning of their illness to be and can help health care professionals assess the patients' educational needs:
 - What do you call the problem and what do you think has caused the problem?
 - Why do you think the problem started? What do you think the sickness does and works?
 - How severe is the illness? Will it have a short or long course?
 - What treatment do you think is necessary? What results do you hope he or she receives?
 - What chief problems has the sickness caused and what do you fear most about it?

Language Barriers:

- If a language barrier exists, it is best if a certified/trained interpreter is present to facilitate communications so that body language can be conveyed. The next best option is for a trained/certified interpreter to be available over the phone.
- Family members should not be used as interpreters for health care-related discussions, particularly if it is a younger family member, for several reasons including:
 - Some cultures perceive it as disrespectful for a younger family member to communicate for an older family member.
 - The issue may be sensitive and the patient may not want family members to know of it.
 - Family members may incorporate their own feelings or bias when they interpret.

Culturally-Appropriate Health Information:

- Ensuring that health information is simple and to the point is of particular importance when there is a language barrier so that confusion can be minimized in the translation.
- When a patient's cultural background conflicts with the Western health care system, health care professionals should employ the skills of negotiation. When patients are engaged in a respectful manner they are much more likely to negotiate and follow recommendations.
- In the process of negotiation, a health care professional listens to a patient, identifies areas of conflict, describes the treatment recommended by Western medicine and together the patient and provider come to an agreement about what care should be provided.
- The Suitability of Assessment Tool is a criterion to judge the cultural appropriateness of written health information. The tool considers if the material matches the way a cultural group thinks, whether it uses appropriate language and if a patient will be able to relate to the experiences/examples presented in the health information.
- Health information is more useful if it displays images of the cultural group in a positive way.
- Computer programs are most effective in patient education if they are interactive, available in several languages and incorporate user-friendly features, such as touch-screens.

Citation:

Cutilli CC. Do your patients understand?: Providing culturally congruent patient education. *Orthopedic Nursing*. 2006 May/June 25(3): 218-224.