The Electronic Medical Record in the Exam Room and the HIV-infected Patient-Provider Relationship
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Background:
The Electronic Medical Record (EMR) is becoming a major component of outpatient office visits. As physicians spend time in front of the computer while interacting with patients, there is concern that there will be less opportunity to discuss psychosocial issues and missed nonverbal communication. HIV-infected individuals face unique psychosocial stressors, such as the chronic nature of HIV and lack of social support. Thus, good quality physician-patient relationships among HIV-infected individuals are especially important. The goal of this study was to determine how EMR use during an outpatient encounter affects communication between providers and HIV-infected patients.

Methods:
This study is a single-center cross-sectional survey analysis to elicit patient and physician perception related to effects of EMR use in the exam room on communication, encounter time, and education during outpatient HIV care visits. Two hundred HIV-infected patients and twenty HIV providers were surveyed from a Yale New Haven Hospital HIV Clinic.

Results:
Among the 200 patients surveyed, 63% of patients used a personal computer. Patients answered that computer use negatively affected communication (5.1%), eye contact (11.8%), listening (5.6%), understanding (17.8%), and overall relationship with provider (27.5%). Patients who do not use a personal computer at home versus those that do were more likely to agree that the computer use made the visit less personal (30% vs 13.7% P= 0.007). Patients who had disclosed their HIV status to a friend or family member (N=168, 84%) compared to those who had not (N=29, 14.5%) were more likely to agree that their provider spent enough time talking to them when using the computer (45.0% vs 24.0% P= 0.027). Patients who have an ND-VL compared to those who have detectable VLs were more likely to agree that they were satisfied by the amount of attention given to them by their provider (65.5% vs 48.9% P= 0.02). Overall, most patients (96.9%) were satisfied with the health care received from their health care provider.

Providers had practiced from a range of 0.5 to 50 years (average 14.4 years). Most of the providers used the EMR in the exam room while seeing a patient (95%). Providers had mixed views regarding computer use. The majority of providers felt they missed non-verbal cues (70%) when using the computer and that computer use made the visit less personal (60%).

Conclusions:
Patients who use personal computers, have disclosed their HIV status, and those with a ND-VL were more likely to answer positively to questions regarding the effects of computer use on communication, encounter time, and education. However, a minority of patients saw the computer as negatively affecting the patient-provider relationship. Compared to patients, providers were more likely to view the computer use as negatively affecting the patient-provider relationship. The results from this study may help reassure providers that the number of patients that negatively view computer use in the exam room is small. However, there are certain patients that may benefit from less provider computer use in the exam room.