

Patient-Provider Communication and Information Access via Online Patient Portal: Understanding User Behaviors to Improve Healthcare and Outcomes

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Abstract

The patient portal is a relatively new healthcare information technology that enables patients more convenient access to their healthcare information and send messages to their physicians. Our study, based on 1172 communication threads (including patient-provider and provider-provider interactions), examined the themes discussed in these messages and different ways in which patients communicate with their providers via a portal employed in a large medical center. We also explored the differences between the patient portal and more traditional communication media (e.g. telephone, mail, and fax), and investigated the advantages and potential problems of the portal system. Further, we also analyzed how the new communication and information workload resulted from the adoption of patient portal was arranged among different clinical groups (nurses, secretaries, and physicians). Our findings show a wide variety of topics discussed in the communication messages (such as medication, appointments, laboratory tests, etc.) and how patients provide information, consult their providers, and express psychosocial and emotional needs. The work arrangement for additional information responsibilities among clinicians may also create new communication issues (e.g. information fragmentation, gap, and inconsistency). Finally, we addressed the implications on the organizational policy improvement, incentive structure, and a better design of the information system.

Keywords: patient-provider communication, health informatics, patient portal, EHR, human-computer interaction
