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The Effects of Participating in Physician-Driven Online Health Community in Managing Chronic Disease: Evidence from Two Natural Experiments

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Abstract

This research examines physician-driven online health communities (OHC), a social media application in healthcare that engages both patients and physicians. Drawing on the “patient–physician partnership” paradigm in managing chronic disease (Bodenheimer et al. 2002), we argue that physician-driven OHC facilitates patient–physician collaborative care and self-management support, which may improve patient well-being and patient–physician relationships. We test the mutual impact between patients’ and physicians’ participation in physician-driven OHC and the impact of patients’ and physicians’ participation on patient well-being and the patient–physician relationship in the context of managing diabetes and depression. We collect data from a leading Chinese online consultation platform. To make credible causal inference, we exploit two events that separately create plausibly exogenous variations in patients’ and physicians’ participation. We find that physicians’ participation significantly increases patients’ participation for both diabetes and depression, but patients’ participation only increases physicians’ participation for depression. Although both patients’ and physicians’ participation significantly improve patient well-being and the patient–physician relationship, there are interesting nuances in these effects over time. These findings have important implications for self-managing chronic diseases and healthcare policy making.

Keywords: Physician-driven online health communities, chronic disease self-management, patient–physician relationship, patient well-being, natural experiment, instrumental variable regression, difference-in-differences

Bodenheimer, T., Lorig, K., Holman, H., and Grumbach, K. 2002. “Patient Self-Management of Chronic Disease in Primary Care,” *JAMA: The Journal of the American Medical Association* (288:19), pp. 2469-2475.