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The Diffusion of Telehealth: System-Level Conditions for Successful Adoption

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Abstract : Telehealth is a promising advancement in health care, though there are certain conditions under which telehealth has a greater chance of success. This research sought to further the understanding of what conditions compel the success of telehealth adoption at the systems level applying Diffusion of Innovations (DoI) theory (Rogers, 1962). System-level indicators were selected to represent four components of DoI theory (relative advantage, compatibility, complexity, and observability) and regressed on 5 types of telehealth (teleradiology, teledermatology, telepathology, telepsychology, and remote monitoring) using multiple logistic regression. The analyses supported relative advantage and compatibility as the strongest influencers of telehealth adoption, remote monitoring in particular. These findings help to quantitatively clarify the factors influencing the adoption of innovation and advance the ability to make recommendations on the viability of state telehealth adoption. In addition, results indicate when DoI theory is most applicable to the understanding of telehealth diffusion. Ultimately, this research may contribute to more focused allocation of scarce health care resources through consideration of existing state conditions available foster innovation.

Keywords : adoption, diffusion of innovation theory, remote monitoring, system-level indicators
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