A Synthesis of Theoretical Investigations into the Adoption of Internet of Medical Things (IoMT)

The Internet of Medical Things (IoMT) market is expected to grow to near $500 billion by 2031. Popular devices include glucose monitors, sleep trackers, temperature trackers, blood pressure monitors, and heart-rate monitors. The most popular IoMT form is a wearable device, such as a fitness tracker, smart fabric, smart patch, or smart shoe insole. The use of IoMT is helpful for medical practices and patients because of lower costs and increases freedom for patients that can monitor from home, but still be connected to their doctors. However, IoMT technology typically transmits data wirelessly via Wi-Fi or cellular to smartphones or computers. This connectivity increases security and privacy risks associated with use of these devices. The purpose of this paper is to synthesize empirical studies that investigated the patient adoption of IoMT devices through a theoretical lens. Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) was utilized, and 49 theoretical studies were found. Analysis indicates that 25 different theoretical models have been used to study IoMT, with the most popular being TAM, UTAUT, UTAUT2, and DOI. Significant findings are discussed.