Background: Advance directives (ADs) are documents that allow competent individuals to set forth their medical treatment wishes and/or to name a proxy in the event that they lose the capacity to communicate these decisions in the future. Technology has remained an important driver of change for centuries; the electronic health record (EHR) has evolved as an important facilitator in patient care processes and the implementation of electronic ADs in an EHR is no exception. The integration of ADs into EHRs is one of the means that has been improvised to improve instant accessibility of AD documents for healthcare providers. Although healthcare providers’ perception of electronic ADs in EHRs can greatly impact its usability, little or no study has been conducted using Technology Acceptance Model constructs to explore perceptions of providers’ use of electronic ADs.

Aim: The aim of this study is to explore the perception of healthcare providers’ use of electronic AD forms in the EHR in terms of perceived usefulness, perceived ease of use, and behavioral intention to use, and to measure impact on actual system usage. This study also examined existing relationships among the participants’ demographics and the research variables described.

Methods: This study was guided by the Technology Acceptance Model (TAM) using a survey adapted from the TAM literature. A cross-sectional, correlational quantitative design was utilized. The study was conducted in six departments at a public, academic healthcare system in the southern United States.

Results: Of the 165 surveys distributed, a total of 151 participants (92%) responded: 67% female (n = 101), 33% male (n = 50). Participants included physicians (n=78); staff nurses (n=57); nurse practitioners (n=4); social workers/case managers (n=6); administrators (n=1); and others (n=5). There was a moderately strong positive correlation between Perceived Usefulness and Actual System Usage (r=0.70, p<0.0001). Likewise, Perceived Ease of Use and Actual System Usage had a moderately strong positive correlation (r=0.70, p<0.0001). In contrast, the strength of the relationship between Behavioral Intention to Use and Actual System Usage was more modest (r=0.22, p<0.004). In addition, the results of the Kruskal-Wallis H test found there was a statistically significant differences in the Actual System Usage of the electronic ADs between the 6 departments ?2(5) = 79.325, p <0.000. Specifically, the Primary Care Clinics are highly significant with p=0.0004 for Behavioral Intention to Use and p<0.0001 for Perceived Usefulness and Perceived Ease of Use. There were not significant relationships between the participants’ demographics and the research variables.

Conclusion: The relationships among primary TAM constructs found in this research are largely consistent with those typical in previous TAM research, with the exception of the Behavioral Intention to Use, which is slightly lower. These data suggest that the healthcare providers’ perception has great influence on the usage of the electronics ADs. However, this study lacks generalization because it was conducted in few departments at a single hospital. Therefore, it is recommended that the future researchers conduct a similar study in a larger scale and, if possible, across different types of EHRs.