

Constructing personalized decision algorithm for mHealth applications

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Abstract: Mental illnesses affect tens of millions of people each year. However, only half of those in need actually receive treatment. This is partly due to the substantial barriers associated with accessing office-based mental health care. As such, there are great needs for providing those who are in need of help with access to efficacious therapies. The use of mobile applications can fill the gap by delivering personalized treatments to patients who will otherwise not have access to the traditional treatments. In this work, we proposed a new analytical framework to develop personalized mobile decision algorithms to optimize immediate goals. The method is evaluated using simulation studies and illustrated using data from a recent mobile health study.