

THE APPLICATION OF OPEN SOURCE SOFTWARE IN HEALTH: A SCOPING REVIEW OF VALIDATED SOFTWARE

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[dx.doi.org/10.18374/EJM-13-4.7](https://doi.org/10.18374/EJM-13-4.7)

ABSTRACT

IT is recognized as a catalyst for higher efficiency and better performance in health organizations. However, due to financial constraints and the expensive cost of commercial solutions, the adoption of health and medical informatics (HMI) has lagged behind expectations. Open source software (OSS) appears as an alternative to reduce the barriers of HMI adoption and challenge the commercial status quo. There is a wide variety of available programs with a wide variety of features; however, unlike drugs and medical treatment devices, OSS developed for health purposes are not required to be clinically validated in a trial. There are numerous sources on the Internet and studies that propose lists of OSS in health care; however, none of them have considered the impact of the selected OSS or the evaluation of the software quality. This scoping review permitted to identify 25 validated OSS applications in numerous health fields, such as radiology, neurology, cardiology and surgery. Moreover, the scoping review permitted to portray the validation process and to apply, for the first time, the D&M model on OSS in health.

Keywords: *Open Source Software, Health clinicians, Scoping Review, Validation process*