

An Evaluation of Patient-Centred Endometriosis Mobile Applications: Original Research

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Objective & Design

Objective: This study aims to perform an audit on patient-centred endometriosis applications (apps) to determine their utility in supporting endometriosis diagnosis and management.

Design: Retrospective audit

Materials & Methods

This is an audit on all patient-centred endometriosis apps on the Apple iTunes Store with apps searched in January 2023. The key term “endometriosis” was used. All patient-centred apps were included. The exclusion criteria were the following: guidance apps for conferences; gaming apps; private healthcare and/or hospital-specific apps; professional-association apps; clinical trial apps and medical device-accompanying apps. All apps were ranked according to the APPLICATIONS scoring system. Objective scoring components were app price, paid subscription, literature cited, in-app purchases, internet connectivity; advertisements, text search fields, interoperating system compatibility and other components such as images and videos. Subjective scoring components were navigation ease and subjective presentation.

Results

Initial search found 22 apps. However, 12 apps (54.5%) were excluded on the criteria above, leaving 10 apps (45.5%) for analysis. Most apps were not comprehensive. Only two apps scored highly as they incorporated a certified scoring system for prediction of endometriosis, an algorithm for recommending subsequent tests and follow-up visits whilst also offering ample evidence-based literature on endometriosis. The other apps scored poorly for various reasons. Two apps focused heavily on alternative treatments of endometriosis (e.g., hypnosis; yoga, relaxation techniques and breathing works) and offered tailored regimens on alternative therapies whilst lacking in evidence-based recommendations. Two apps focused on healthy diets and offered customized food recipes whilst ignoring other aspects of endometriosis treatments. Three apps were solely diaries of endometriosis symptoms whilst offering little information on diagnosis and management. Only a few apps offered the ability to book follow-up visits after establishing a likely diagnosis of endometriosis. The ability to export patient-specific data were also lacking from most apps, hindering further collaboration with healthcare providers.

Only a few apps provide functions that measure the likelihood of suffering from endometriosis whilst others rely on patients having been diagnosed with endometriosis. Most apps were free to use whilst those offering in-app purchases were mainly apps offering alternative treatments of endometriosis. Fortunately, most apps were easy to use with good designs employing vibrant colours and user-friendly interfaces.

Conclusion

Only a very limited number of patient-centred endometriosis apps are comprehensive and will allow collaboration with healthcare providers. There is abundant opportunity for future patient-centred endometriosis apps development given the limited number and quality of available apps.