



MOBILE APPLICATIONS TO CHECK DRUG INTERACTIONS: QUALITATIVE AND QUANTITATIVE ANALYSIS

MONTERO DELGADO JA¹, DE POURCQ JT², CANTUDO CUENCA MR³, SUÁREZ GONZÁLEZ M¹, GOMEZ MELINI E¹, RAMOS SANTANA E¹, VIÑA ROMERO MM¹, GUTIERREZ NICOLÁS F⁴, TEVAR ALFONSO E¹, PLASENCIA GARCÍA I¹, MERINO ALONSO FJ¹

¹Hospital Universitario Nuestra Señora de Candelaria (S/C de Tenerife, Spain), ²Hospital de la Santa Creu i Sant Pau (Barcelona, Spain)

³Hospital General San Agustín (Jaén, Spain), ⁴Complejo Universitario de Canarias (S/C de Tenerife, Spain).



BACKGROUND

- The number of medical apps has increased exponentially in recent years, being more than **230.000** available.
- Because of the lack of regulation, some of these apps may offer inaccurate content or may not reach the minimum quality standards in order to be used by healthcare professionals.



PURPOSE

To analyze the drug interaction checker apps available for mobile services and to classify their quality according to **MARS score**.

MATERIALS AND METHODS

- Cross-sectional study performed in october 2017 to find and classify the best mobile applications to check drug interactions according to **MARS score**.

Inclusion criteria

Apple App Store



Search.... **"Drug interaction"**



Google play

Exclusion criteria

- No drug searcher available or drug searcher only available for a specific drug class.
- No health & fitness or medicine category.
- No english language.
- Pay or subscription app.
- Not updated in the last 36 months.



The selected apps were **downloaded** in a smartphone and in a tablet of both systems in order to be analyzed.

- The app's quality and reliability was measured by means of **MARS** (Mobile App Rating Scale).

Functionality Engagement Information Aesthetics

19 ITEMS

rated in a 1-5 points scale

- Social Mean Score was measured according to Google Play reviews
- Data collection and statistical analysis



4,03

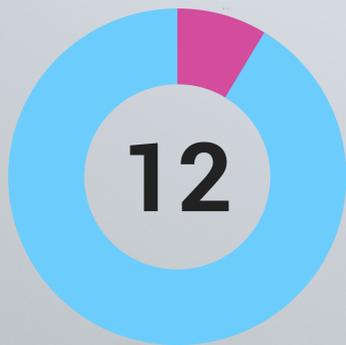
RESULTS

MARS mean score was **3.01 (1.93 - 4.28)**.

SOCIAL MEAN SCORE

139

Apps identified



Met the criteria

TOP five (0-5):



Medscape

4,28



Drugs.com Medication Guide

4,08



Pharmacist Pro-Drug Interaction Checker

3,61



Pocket Pharmacist

3,55



Assist UK-Drug Interactions

3,26

CONCLUSIONS

There is a high amount apps to check drug interactions but only few have enough quality to be used with guarantees by healthcare professionals in their clinical activity.

REFERENCES

* Stoyanov SR et al. Mobile App Rating Scale: A New Tool for Assessing the Quality of Health Mobile Apps. JMIR mHealth and uHealth. (2015).

