QUALITY, GAPS AND OPPORTUNITIES IN SMARTPHONE APPLICATIONS FOR PULMONARY HYPERTENSION: AN EVALUATION FROM HOSPITAL PHARMACISTS AND PATIENTS' PERSPECTIVE

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Background and importance

Hospital pharmacists and patients face challenges in identifying high-quality, functional smartphone applications (apps) for aiding pulmonary hypertension (PH) management.

Aim and objectives

To evaluate the quality and utility of PH-focused apps from the perspectives of hospital pharmacists and patients.

Material and methods

- ✓ **Design**: Observational.
- ✓ **Study period:** October 2022.
- ✓ **Methods: Systematic** search in App Store (Android) y Play Store (iOS).
- ✓ **Inclusion criteria:** free apps intended for PH patients and healthcare providers on Android and iOS platforms.

Mobile Application Rating Scale (MARS): 23 items in 5 dominions.

- ✓ Engagement
- ✓ Functionality
- ✓ Aesthetic
- ✓ Information
- ✓ Subjective quality

Rating
1 → 5

Mann-Whitney U tests were applied to compare mean MARS scores based on specific variables.

Results

9 Android
7 iOS
4 Both

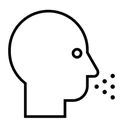
20 Apps

11 apps were **updated** the previous year.

Only 10 apps were developed with **healthcare professional input,** and none involved PH patients.

5 Developed by the pharmaceutical-industry.
8 developed with funds from the pharmaceutical-industry

- 11 targeted **healthcare professionals**
- **lacked functionalities**, such as drug interaction checks or allowing direct communication with patients.



- 9 were designed for **patient** use.
- **None** offered features for **patient self-management** like adverse effect monitoring or medication tracking.

Mean MARS score:
3.4 (1.8-3.9),

Healthcare professional participation, pharmaceutical industry involvement, and target population **did not significantly affect app quality.**

Conclusions

Existing PH apps, though of acceptable quality, overlook the unique needs of hospital pharmacists and PH patients. The necessity for targeted app development to serve these groups in PH management is clear. While such development could enhance patient care, its effectiveness requires empirical validation through controlled studies.

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