trained linguist transcribed/coded 1495 outputs. Only adults capable of performing the task were enrolled. Non-parametric Chi-square ($p<0.05$) was applied.

Results

Overall, less educated have produced significantly more errors than more educated ones ($X2 = 92.875$, $p<0.001$); 31% vs. 14.4% incorrect productions. Percentage of correct productions in canonical vs. names with letters "y", "k", or "w" vs. non-canonical names: more educated (90.3% vs. 82.6% vs. 75.3%), and less educated participants (64.6% vs. 68.5% vs. 44.3%).

Conclusions

Less educated participants performed worst, suggesting that this population might be more vulnerable to medication errors. Brand names not complying with regulations requirements seem to favour production errors. More investigation is needed towards creating linguistic norms to develop/adapt suitable medicine names.

Poster005

Are Portuguese brand names of medicines readable?

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Background

Misunderstandings involving medicine names may cause serious medication problems. According to regulations, medicines names must be readable and pronounceable. However, investigation on readability of medicines names is limited.

Purpose

To quantify and characterize phonological errors in a reading task of Portuguese medicines brand names.

Methods

Undergraduates from a Portuguese faculty were conveniently selected from non-biomedical courses to minimize prior knowledge on names investigated (2014). Overall, 12 names were tested repeated 3 times. Thirty participants, above age 18 and able to perform the task, read aloud names successively displayed on a screen. Productions were audiorecorded. 1081 names were produced and phonetically transcribed by a trained phonetician, who also identified and coded the errors as: substitutions - a segment is replaced by another (clarotine for claritine®); insertion - a segment is added (claritines for claritine®); metathesis - segments interchange positions (cliratine for claritine®); deletion - a segment is deleted (claritin for claritine®); inadequate vowel reduction. Hesitations and/or lengthening were also coded.

Results

Of 1081 names transcribed, 83.3% were fully correct, 10.6% contained errors, 5% were produced with hesitations and/or lengthening, and 1.1% were not analyzed due to audio problems. In the names containing errors (n=114), 187 errors were identified: 44.4% had deletion errors, 29.4% had substitution errors, 13.9% had incorrect insertions, 10.7% had metathesis, and 1.6% were produced with incorrect vowel reduction.

Conclusions

Brand names of Portuguese medicines are prone to pronunciation errors even for educated users. Adaptation to Portuguese grapho- and phonotactics might be needed, as recommended in national and international regulations. More studies are necessary to investigate the potential impact of the different types of errors in medication errors, and error type in other social groups (e.g. older, less educated subjects; health professionals).

Poster006

Conceptual approaches to the sustainability of healthcare services and their application to pharmacy

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Background

Implementation research aims to develop methodologies to incorporate evidence-based innovations into practice. Following implementation, accomplishing sustainability of the innovation is critically essential to ensure the long-term continuity of services. A number of conceptual approaches to the sustainability of evidence-based innovations in healthcare exist. These approaches aim to guide the process, determine factors influencing and form part of the evaluation. However, the sustainability of innovations in pharmacy services is an area yet to be studied. Therefore there is a need for a conceptual framework to underpin the development of sustainable professional pharmacy services.

Purpose

To evaluate the conceptual approaches for the sustainability of innovations in healthcare in order to develop a framework specific for professional pharmacy services.

Methods

A systematic literature search was undertaken in February 2018 in PubMed, Scopus and Web of Science to identify conceptual approaches/theoretical frameworks for the sustainability of healthcare innovations. All the titles and abstracts were screened and potential articles identified. A table was created for data extraction (type and characteristics of conceptual approach, innovation used, setting, target user).

Results

From the 3033 articles screened, 2585 articles were eliminated after title and abstract screening. 448 full-text articles were reviewed providing 68 sustainability conceptual approaches. The proposed framework for pharmacy services includes two major components: the service and the context domains with factors which moderate the sustainability of the pharmacy service (e.g. adaptability, funding, leadership, and training). The context domains include Individuals (e.g. pharmacy staff), Pharmacy, Local setting (e.g. healthcare professional, stakeholder) and System. Continued evaluations of the service components delivery are crucial to prove sustainable service effectiveness.

Conclusions

Monitoring the service progress is essential to identify the factors affecting its sustainability, allowing their adaptation to the change in circumstances. The proposed framework will guide pharmacy practice researchers and practitioners to evaluate the sustainability of professional services previously implemented.