

267

THE QUALITY OF FREE APPLICATIONS AVAILABLE FOR KIDS 2 TO 3 YEARS OLD

Lucas Barbosa da Costa¹, Evelyn Daynara Miranda Corrêa¹, Lóren Beatriz Rocha¹, Mylena Francielle Ribeiro Lima¹, Rosane Luzia Morais¹, Juliana Nunes Santos¹

¹ Federal University of Vales do Jequitinhonha and Mucuri (UFVJM), Diamantina, Minas Gerais, Brazil

Background: Early childhood is a crucial period for the individual since it promotes child growth and development, which is influenced by environmental resources, types of toys, family practices, among others. Currently, digital media are one of the main pastimes of children, whose use is growing exponentially. There is a great offer of applications in virtual stores, without corresponding to their quality, which aim only to entertain and distract the user. Therefore, it is necessary to investigate whether the available applications are able to promote interactivity and children's learning, in addition to offering recreational and educational content that stimulate the potential of that age group.

Objectives: Evaluate the interactivity and learning of games/applications for children aged between two and three years, available free of charge on the internet.

Methods: This is a descriptive study, preliminary to the development of a randomized controlled study. It started with the search and selection of applications in the Google Play[®] online store, compatible with the Samsung A7 Tablet operating system; associated with Google search and the Tablet's own app store, combining terms for learning and interactivity purposes. Then, each application was used by 15 two- to three-year-old children from a municipal public education institution, in a single session to verify the following criteria: (1) interactivity: critical thinking, active participation, decision-making; (2) learning: activities that stimulate cognitive, fine motor, receptive language, expressive language, and social-emotional development; (3) suitability: age, developmental period, multiple domains and (4) outcomes: challenging, non-frustrating activity that provides feedback. For analysis, a form was produced with 15 questions evaluating learning, interactivity, suitability, and results, with response options on a Likert scale, where 0 ("not at all") to 3 ("quite a lot"), completed by the researchers through the participant observation technique. For the analysis of responses, scores were calculated on each axis, with a maximum value of 1.00, with 0.6 being the minimum value considered appropriate.

Results: By combining the terms searched, 20 applications were found, of which only 7 were selected because they were age-appropriate and freely available. As for the evaluated criteria, the apps obtained an average score of 0.74 in the learning item (0.59 - 0.84), 0.82 in interactivity (0.41-0.95), 0.78 in adequacy (0.53 -0.90) and 0.81 in the results item (0.47 - 0.96).

Conclusion: Just over 2/3 of the applications showed good results in terms of interactivity, learning, adequacy, and result, revealing their potential to stimulate critical thinking, active participation and decision-making in children, as well as to enhance their development. child development.

Implications: Guiding the population not only about the best apps, but also about the search and selection criteria, giving autonomy to those responsible for identifying games that will benefit the children who will use them. In addition, the selection of applications contributed to the realization of a randomized study, which has the purpose of investigating the influence of passive and active media on child development.

Keywords: Child, Child development, Mobile Applications

Conflict of interest: The authors declare no conflict of interest.

Acknowledgment: We thank the Federal University of Vales do Jequitinhonha and Mucuri (UFVJM), and the Coordination for the Improvement of Higher Education Personnel (CAPES).

Ethics committee approval: Federal University of Jequitinhonha and Mucuri Valleys; 4.035.263

<https://doi.org/10.1016/j.bjpt.2024.100864>

268

REHABILITATION OF THE MOTOR FUNCTION OF PATIENTS AFTER STROKE: A BIBLIOMETRIC ANALYSIS

Lucas Fernando Alves e Silva¹, Eduarda Elisa Martins Amaral¹, Danilo Silva Barbosa¹, Naicha Stefanie Félix Souza¹, Alex Harley Crisp¹

¹ Universidade Federal do Pará (UFPA), Belém, Pará, Brasil

Background: Stroke is one of the leading causes of mortality and disability worldwide. Post-stroke rehabilitation is an essential intervention to help patients regain motor function and physical independence. However, it is important to follow the evolution of scientific studies on the subject.

Objectives: Perform a bibliometric analysis on motor function rehabilitation in post-stroke patients.

Methods: This study was based on an analysis of bibliometric indicators of original articles indexed in the Web of Science database. The search strategy was carried out in March 2023, using the descriptors: "Stroke survivors" OR "After stroke" AND "Motor function" AND "Rehabilitation". Search records were saved in .txt format and analyzed in the R program (version 4.2.2) using the Bibliometrix package (version 4.1.2).

Results: We identified 1,883 articles published between 1970 and 2023, involving 25,434 authors, with an annual growth rate of 7.53%. The international collaboration rate was 23.79%, with the United States and China standing out. The most influential journal was Disability and Rehabilitation, with the highest number of publications (n=97). The most influential authors on the subject included Bruce Ovbiagele of the University of California (USA) and William Zev Rymer of Northwestern University (USA), both with 31 publications. The study entitled "Robot-assisted movement training compared to conventional therapy techniques for the rehabilitation of upper limb motor function after stroke" by Peter Lum and colleagues (2002) was the most cited study (n=764). The study indicated clinical and biomechanical advantages of robot-assisted movement training compared to conventional techniques for the rehabilitation of upper limb motor function after stroke. The countries with the highest number of publications on the subject are the United States (n=1,782), China (n=800) and the United Kingdom (n=741), with the United States having the highest number of citations (n=11,722). The co-occurrence network analysis of the authors' keywords resulted in the formation of two clusters, with emphasis on themes related to rehabilitation ("exercise", "physical activity", "gait", "balance") and outcomes ("quality of life", "disability", "depression", "social support", "self-efficacy").

Conclusion: The bibliometric analysis of motor function rehabilitation in post-stroke patients revealed a significant increase in the last two decades, with emphasis on outcomes such as quality of life, disability, depression, social support, and self-efficacy.

Implications: These findings have important implications for the field of knowledge, providing insight into the most investigated lines of research, and contributing to the formulation of future studies. In addition, identifying the most prominent authors and journals can help guide health professionals to the most reliable and up-to-date sources of information on the subject.

Keywords: Physical Activity, Movement, Quality of Life

Conflict of interest: The authors declare no conflict of interest.

Acknowledgment: We would like to thank our advisor Alex Harley