



**PREMIO A LA PUBLICACIÓN CIENTIFICA DEL
MES EN LA FACULTAD DE ENFERMERIA,
FISIOTERAPIA Y PODOLOGÍA**

Los mejores artículos de los meses
Enero a Abril de 2018



“Technology-Based Feedback and Its Efficacy in Improving Gait Parameters in patients with Abnormal Gait: A Systematic Review Technology-Based Feedback and Its Efficacy in Improving Gait Parameters in Patients with Abnormal Gait: A Systematic Review”

ABSTRACT

This systematic review synthesized and analyzed clinical findings related to the effectiveness of innovative technological feedback for tackling functional gait recovery. An electronic search of PUBMED, PEDro, WOS, CINAHL, and DIALNET was conducted from January 2011 to December 2016. The main inclusion criteria were: patients with modified or abnormal gait; application of technology-based feedback to deal with functional recovery of gait; any comparison between different kinds of feedback applied by means of technology, or any comparison between technological and non-technological feedback; and randomized controlled trials. Twenty papers were included. The populations were neurological patients (75%), orthopedic and healthy subjects. All participants were adults, bar one. Four studies used exoskeletons, 6 load platforms and 5 pressure sensors. The breakdown of the type of feedback used was as follows: 60% visual, 40% acoustic and 15% haptic. 55% used terminal feedback versus 65% simultaneous feedback. Prescriptive feedback was used in 60% of cases, while 50% used descriptive feedback. 62.5% and 58.33% of the trials showed a significant effect in improving step length and speed, respectively. Efficacy in improving other gait parameters such as balance or range of movement is observed in more than 75% of the studies with significant outcomes. Conclusion: Treatments based on feedback using innovative technology in patients with abnormal gait are mostly effective in improving gait parameters and therefore useful for the functional recovery of patients. The most frequently highlighted types of feedback were immediate visual feedback followed by terminal and immediate acoustic feedback.



“Effectiveness of Massage Therapy and Abdominal Hypopressive Gymnastics in Nonspecific Chronic Low Back Pain: A Randomized Controlled Pilot Study”

ABSTRACT

Background. There are a great number of interventions in physiotherapy, but with little evidence of their effectiveness in chronic low back pain. Therefore, this study assesses effectiveness of Massage Therapy and Abdominal Hypopressive Gymnastics and the combination of both to decrease pain and lumbar disability while increasing joint mobility and quality of life in patients with chronic nonspecific low back pain. Methods. A randomized, single-blinded, controlled, clinical trial with sample () was comprised of patients between 20 and 65 years, diagnosed with pain of mechanical origin characterized by having a duration of at least 12 weeks and no serious complications. Each group received 8 interventions of 30 minutes. Results. Friedman ANOVA test obtained statistically significant differences of Oswestry, NRS, and Schober variables () in the three measurements (pretest, posttest 1, and posttest 2), in each individual group. ANOVA Kruskal-Wallis test was used for comparison between groups, and Oswestry Disability values were significantly higher () in the group receiving both treatments. Conclusion. Both individual groups reduce pain levels, improve disability, and increase the flexibility of the lumbar spine. The combination therapy provides greater benefits in terms of lumbar disability. This study is registered on March 8, 2016, with [NCT02721914](#).



“Interventions to improve working conditions of nursing staff in acute care hospitals: Scoping review”

ABSTRACT

To conduct a scoping review to examine and map the interventions proposed for the improvement of the working conditions of nursing staff in acute care hospitals.

The Registered Nurse Forecasting (RN4CAST) project and other studies have determined the impact that the nursing staff has on the quality of care. The nursing staff's higher levels of burnout, job dissatisfaction and negative perception of the quality of care provided caused worse health outcomes.

A scoping review was carried out. By searching in SCOPUS, PubMed, CINAHL, Cochrane, Dialnet and in the grey literature, 705 potentially relevant papers were identified. The final analysis included 21 papers and three grey documents.

The studies analysed proposed interventions at the macro-management, meso-management and micro-management levels, although the interventions at the macro- and meso-levels produce better staff outcomes.

The findings of this review can be applied to management at different levels: measures to improve the patient–nurse ratio at the macro-management level, the horizontal hierarchies at the meso-management level, the mind–body techniques at the micro-management level.



“Design, implementation and evaluation of a web-based computer-tailored intervention to prevent binge drinking in adolescents: study protocol”

ABSTRACT

Binge-drinking in adolescents is a highly prevalent healthcare problem that associates physical and mental health complications with community implications. This paper describes the design, implementation and evaluation of the first web-based computer tailored intervention aimed at the prevention of binge drinking in Spanish adolescents.

The Alerta Alcohol program is based on the I-Change Model. First, feedback from focus and Delphi groups are used for cultural adaptation and to obtain further information on the items to be included on the program. A pilot study is then conducted to assess feasibility and to identify strengths and weaknesses. Second, a Cluster Randomized Controlled Trial is conducted to test the effectiveness of Alerta Alcohol in students aged 16 to 18 years. The study is performed in 16 high schools from Andalusia (southern Spain), which are randomized either to the experimental or the control condition (EC and CC). The EC receives the Alerta Alcohol intervention, which consists of four sessions at school (baseline questionnaire, two sessions in three scenarios: at home, celebrations, and public places, and a final evaluation). The adolescents are provided with answers related to their views of each scenario; this information is used to provide highly specific feedback regarding their knowledge, risk perception, self-esteem, attitude, social influence, and self-efficacy. In addition, two booster sessions are given at home to reinforce the previous messages. The CC just completes the baseline and the final evaluation questionnaires and then they are allowed to receive the intervention as well (as a waiting list). Evaluation takes place after four months. The primary endpoint is binge drinking within 30 days prior to the evaluation and alcohol use in the previous week. It is expected that Alerta Alcohol reduce the prevalence of binge drinking by 10%. Follow up analyses are carried out to determine the differences in effectiveness according to the compliance of the program (quality of the implementation).





Thank you very much for your time