

Advanced Palliative Aquatics Care Multi-Device AuBento for Symptom and Pain Management by Sensorial Integration and Electromagnetic Fields: A Preliminary Design Study

Authors : J. F. Pollo Gaspar, F. Peron Gaspar, E. M. Simão, R. Concatto Beltrame, G. Orengo de Oliveira, M. S. Ristow Ferreira, J.C. Mairesse Siluk, I. F. Minello, F. dos Santos de Oliveira

Abstract : Background: Although palliative care policies and services have been developed, research in this area continues to lag. An integrated model of palliative care is suggested, which includes complementary and alternative services aimed at improving the well-being of patients and their families. The palliative aquatics care multi-device (AuBento) uses several electromagnetic techniques to decrease pain and promote well-being through relaxation and interaction among patients, specialists, and family members. Aim: The scope of this paper is to present a preliminary design study of a device capable of exploring the various existing theories on the biomedical application of magnetic fields. This will be achieved by standardizing clinical data collection with sensory integration, and adding new therapeutic options to develop an advanced palliative aquatics care, innovating in symptom and pain management. Methods: The research methodology was based on the Work Package Methodology for the development of projects, separating the activities into seven different Work Packages. The theoretical basis was carried out through an integrative literature review according to the specific objectives of each Work Package and provided a broad analysis, which, together with the multiplicity of proposals and the interdisciplinarity of the research team involved, generated consistent and understandable complex concepts in the biomedical application of magnetic fields for palliative care. Results: Aubento ambience was idealized with restricted electromagnetic exposure (avoiding data collection bias) and sensory integration (allowing relaxation associated with hydrotherapy, music therapy, and chromotherapy or like floating tank). This device has a multipurpose configuration enabling classic or exploratory options on the use of the biomedical application of magnetic fields at the researcher's discretion. Conclusions: Several patients in diverse therapeutic contexts may benefit from the use of magnetic fields or fluids, thus validating the stimuli to clinical research in this area. A device in controlled and multipurpose environments may contribute to standardizing research and exploring new theories. Future research may demonstrate the possible benefits of the aquatics care multi-device AuBento to improve the well-being and symptom control in palliative care patients and their families.

Keywords : advanced palliative aquatics care, magnetic field therapy, medical device, research design

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020