

Contents lists available at ScienceDirect

## Journal of Critical Care



journal homepage: www.jccjournal.org

# Occupational therapy for delirium management in elderly patients without mechanical ventilation in an intensive care unit. A pilot randomized clinical trial



Evelyn A. Álvarez, Master of Neuroscience <sup>a,e,\*</sup>, Maricel A. Garrido, Master of Neurorehabilitation <sup>b</sup>, Eduardo A. Tobar, Intensivist <sup>c</sup>, Stephanie A. Prieto, Occupational Therapist <sup>a,b</sup>, Sebastian O. Vergara, Master of Neurorehabilitation <sup>b</sup>, Constanza D. Briceño, Occupational Therapist <sup>b,e</sup>, Francisco J. González, Internist <sup>d</sup>

<sup>a</sup> Escuela de Terapia Ocupacional, Universidad Central de Chile, Lord Cochrane # 417, Santiago Centro 8330507, Chile

<sup>b</sup> Servicio de Medicina Física y Rehabilitación, Hospital Clínico Universidad de Chile, Santos Dumont # 999, Independencia 8380456, Chile

<sup>c</sup> Unidad de Pacientes Críticos, Departamento de Medicina Interna Norte, Hospital Clínico Universidad de Chile, Santos Dumont # 999, Independencia 8380456, Chile

<sup>d</sup> Servicio de Medicina Interna, Departamento de Medicina, Hospital Clínico Universidad de Chile, Santos Dumont # 999, Independencia 8380456, Chile

e Departamento de Terapia Ocupacional y Ciencia de la Ocupación, Universidad de Chile, Avenida Independencia # 1027, Independencia 8380453, Chile

Dear Editor,

We address to you in response to the letter sent by Launa Williamson about our article "Occupational therapy for delirium management in elderly patients without mechanical ventilation in an intensive care unit: A pilot randomized clinical trial".

We would like to clarify a few key points; we value and understand the relevance of multidisciplinary interventions in medical and health processes, in this case the prevention of delirium in intensive care units [1]. This research was carried out by a team composed of doctors, nurses, occupational therapists, physiotherapists and nursing assistants, everyone with several years of work experience in intensive care units (ICU).

This research included several strategies with highly recognized scientific evidence for its control group. Among them temporal and spatial orientation, correction sensory deficit, environmental management and sleep protocol were implemented by the nursing team, while early mobilization was performed by physiotherapists [2,3]. The obtained results were consistent with previous literature, lowering the incidence of delirium in the study population.

Patients in the experimental group received the same intervention as the control group, implemented by the nursing and physiotherapist team, and added the intervention of occupational therapy (OT), achieving better results. It does not mean that occupational therapy's work by itself was successful, but teamwork including occupational therapist allows improvements in terms of preventing delirium in ICU.

Nowadays, there are many studies highlighting the work of nursing and physiotherapy, which are widely recognized by ICU. In this article, we tried to differentiate the actions of the OT which is still imprecise, with limited evidence, which requires precise protocols in order to be able to integrate and provide better resources to ICU teams.

The medical and nursing advances achieved in critical patient units have generated a greater number of survivors, which persist with various long-term cognitive, physical, affective and medical impairment [4]. This challenge requires joint efforts of different health professionals, with systematized and evidenced contributions.

#### **Conflicts of interest**

AE, GM, VS, BC, PS and GF received fees by the award of a public fund research and development in health belonging to a government commission. TE no received fees.

### Source of funding

The trial was funded by "Fondo Nacional para la Investigacion y Desarrollo en Salud" (FONIS – National Fund for Health Research and Development), which belongs to the "Comisión Nacional de Investigación Cientifica y Tecnológica de Chile" (CONICYT – Chilean National Commission for Scientific and Technological Investigation), FONIS SA10I20015. The commission did not participate in any of the stages pertaining to the study (design, application, data collection or analysis, interpretation, writing of the present paper or decisions regarding publishing).

#### References

- [1] Abraha I, Rimland JM, Trotta F, et al. Non-pharmacological interventions to prevent or treat delirium in older patients: clinical practice recommendations the SENATOR-ONTOP series. J Nutr Health Aging 2016;20:927–36. http://dx.doi.org/10.1007/ s12603-016-0719-9.
- [2] Alvarez E, Garrido M, Tobar E, Prieto S, Vergara S, Briceño C, et al. Occupational therapy for delirium management in elderly patients without mechanical ventilation in an intensive care unit: a pilot randomized clinical trial. J Crit Care 2017;37:85–90. http://dx.doi.org/10.1016/j.jcrc.2016.09.002.
- [3] Álvarez EA, Garrido MA, Tobar EA, Prieto SA, Vergara SO, Briceño CD, et al. Appendix A. Supplementary data. Electronic Material Supplementary. "Occupational Therapy for Delirium Management in Elderly Patients Without Mechanical Ventilation in an Intensive Care Unit. A Pilot Randomized Clinical Trial."; 2017.
- [4] Jones Christina. Recovery post ICU. Intensive Crit Care Nurs 2014;30(5):239–45. http://dx.doi.org/10.1016/j.iccn.2014.06.001.

<sup>\*</sup> Corresponding author.

E-mail address: evelyn.alvarez@ucentral.cl (E.A. Álvarez).