**Positive effects of psychological support based on positive suggestions (PSBPS) on the recovery of ventilated patients**

We ran a randomized controlled trial with ventilated patients using the Hungarian audio containing suggestive messages about safety, self-control, recovery, and cooperation\*. We showed method and results of the study here (Varga et al., 2007, K. Szilagyi et al., 2007, Schlanger et al., 2013\*\*) and here (K. Szilagyi et al., 2014 \*\*\*) and we’re publishing the data of the 220 patients in the study. Results showed that the length of Intensive Care Unit stay (LOS) and the time spent on a ventilator was significantly shorter by an average of 2 days and the survival rate was also better in the group having this kind of suggestive therapy as well, compared to the usual ICU care alone.

The outcomes measures:

We used **age, sex**, and the new Simplified Acute Physiology Score (**SAPS I**I) to ensure the homogeneity of the groups.

The **requirements of sedation-analgesia** (opioids, propofol, and benzodiazepines – including alprazolam, clonazepam, diazepam) were also recorded, unless part of regular (at home) prescriptions, to assess the effects of the interventions on these medications.

We recorded the **length of stay in the ICU in hours** (LOS), **the length of mechanical ventilation in hours** (LMV), and **mortality**.

We analyzed the data of only those patients who were weaned off from the ventilator before discharge and excluded those transferred to other ICU before being weaned off.

Procedure:

We think the good results are due to the new point of view of the patients gained by the audio where patients can perceive themselves as a **cooperating, active part of the healing team**. This enhances the patient’s sense of agency and self-power leading them to the recovery by alleviating stress and giving a peaceful, hopeful position.

Introducing the audio with these sentences is important to enhance and achieve the above-mentioned goals:

„Hello, today’s date is (day, month, year) You’ve been recovering in X..... hospital Intensive Care Unit for Y.... days. I am here to put these earphones on you so that what you will hear in them also helps you in your recovery.”

A female voice is important to give a sense of maternal caring rather than the fear of authority.

Dose:

Patients listen to the audio **once a day**, irrespective of their state of consciousness and physical state, unless they have refused it. They always have to be asked **if they would like to listen to it or not**. Patients not giving a response are considered to agree. Patients who reject the headphones on three consecutive days or say at any time that they don’t wish to have it anymore, won’t have it anymore. (When proceeding a study you can analyze these patients later as members of the **“rejector” group**.)

The best results were found if/when we started to use the audio **as early as possible**. It means usually we started to use it with sedated, unconscious patients.

Eligibility, inclusion / exclusion criteria

Every patient can listen to the audio who has ever had a tube in his/her throat (during the current illness.) If they wish to listen to the audio, they can listen to it all the length of their stay at the intensive care unit. (even after being weaned off the ventilator ).

Patients having a severe hearing disability cannot benefit from the procedure

\* In case of using this suggestive text for running a trial, please include our team in the list of authors in future written publications of this study. Adrienn K. **Szilágyi**, Doctoral School of Psychology, ELTE Eötvös Loránd University, Budapest, Hungary, Csaba **Diószeghy**, East Surrey Hospital, Emergency Department and ITU, Redhill, United Kingdom, Katalin **Varga**Institute of Psychology, ELTE Eötvös Loránd University, Budapest, Hungary

\*\* Varga, K., Diószeghy, Cs., Fritúz, G. (2007). Suggestive communication with the ventilated patient. *European Journal of Mental Health, 2(2),* 137–147.

 K. Szilágyi A., Diószeghy Cs., Benczúr L., Varga K. (2007). Effectiveness of psychological support based on positive suggestion with the ventilated patient. *European Journal of Mental Health, 2007, 2,* 137-147.

Schlanger J., Frituz G., Varga K. (2013). Therapeutic suggestion helps to cut backon drug intake for mechanically ventilated patients in intensive care unit. *Interventional Medicine & Applied Science, 5(4),* 145–152.

\*\*\* K. Szilágyi A.,Diószeghy Cs., Fritúz G., Gál J., Varga K.(2014)**:** Shortening the Length of stay and Mechanical Ventilation Time by using Positive Suggestions Via mp3 Players for Ventilated Patients, *Interventional Medicine and Applied Science* Vol. 6 (1), pp. 3–15 (2014)