Can hypnosis be used to manage breathlessness and anxiety in people with severe COPD?

| Submission date | Recruitment status | Prospectively registered | | |
|-------------------------------|--------------------------------|--|--|--|
| 19/12/2019 | No longer recruiting | [X] Protocol | | |
| Registration date | Overall study status | Statistical analysis plan | | |
| 07/01/2020 | Completed | [X] Results | | |
| Last Edited 28/02/2023 | Condition category Respiratory | [] Individual participant data | | |
| 20/02/2023 | Respiratory | | | |

Plain English summary of protocol

Background and study aims

Patients with chronic obstructive pulmonary disease (COPD) are prone to asthma-like wheezing, breathlessness, chest tightness and other anxiety-inducing symptoms. Drug treatments for the condition focus on improving these symptoms and preventing exacerbations (short periods where the disease becomes much worse). However, as the disease progresses, the drugs stop working as effectively as previously. Patients with advanced COPD and those who are dying often feel less benefit from the treatment in terms of relief from their symptoms and relief from anxiety about their breathing. This lack of relief can worsen their illness over time. Hypnosis is known to induce immediate changes in how a person thinks and experiences their body. These changes can break vicious cycles of anxiety. Hypnosis has already been used successfully people with breathing problems to reduce anxiety and improve breathing. This trial aims to investigate the effect of hypnosis on breathlessness and anxiety in severe and dying COPD patients.

Who can participate?

Patients who suffer from severe COPD, already admitted at the Bligny Hospital Center (CHB)

What does the study involve?

Each participant will receive a 15-min session of hypnosis and a 15-min session of active listening in a random order. Active listening involves the therapist reading aloud and the participant will be encouraged to pay attention and visualize the images that are being described. Participants will have their anxiety level, breathing rate and blood oxygen level measured before and after each session.

What are the possible benefits and risks of participating?

The risks are minimal because hypnosis poses no real threat or adverse effects to a person's mental or physical health. As long as people accept 15 minutes of 'playing the game', it should make them relax and feel good. The same applies to active listening.

Where is the study run from? Bligny Hospital Center (France)

When is the study starting and how long is it expected to run for? September 2017 to January 2020

Who is funding the study?

Bligny Hospital Center (France), Fondation pour les Soins Palliatifs (France) and the Japanese Society for the Promotion of Science (JSPS)

Who is the main contact?

Dr François Larue, head of the Palliatve Care Unit at the CHB, flarue@chbligny.fr

Contact information

Type(s)

Scientific

Contact name

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Additional identifiers

EudraCT/CTIS number

Nil known

IRAS number

ClinicalTrials.gov number

Nil known

Secondary identifying numbers

2019-A02016-51, NTS 19.07.16.35413.

Study information

Scientific Title

Hypnosis for management of breathlessness and anxiety in severe and palliative-care COPD patients: a sham-controlled crossover trial

Acronym

HYPNOBPCO_1

Study objectives

Hypnosis constitutes a non-drug complementary procedure capable of diminishing subjective feelings of breathlessness and anxiety, while improving patient's awareness and subjective appreciation of their breathing mechanics. We posit that hypnosis will diminish anxiety in severe and terminal COPD patients, improving their breathing and quality of life (QoL).

Ethics approval required

Old ethics approval format

Ethics approval(s)

Approved 07/11/2019, Comité de Protection des Personnes Ile de France 1 (Hôtel-Dieu-1, Place du Parvis Notre-Dame, 75181, Paris, France; +33 (0)1 42 34 80 52; cpp.iledefrance1@htd.aphp.fr/cppiledefrance1@orange.fr), ref: CPPIDF1-2019-ND75

Study design

Randomized sham-controlled crossover study

Primary study design

Interventional

Secondary study design

Randomised cross over trial

Study setting(s)

Hospital

Study type(s)

Quality of life

Participant information sheet

See addition files for information sheet in French.

Health condition(s) or problem(s) studied

Dyspnea (breathlessness) in patients with severe chronic obstructive pulmonary disease (COPD)

Interventions

Treatment: Hypnosis (15-minute script, available on request)

Sham: Active listening session (15-minute script, available on request)

6-week, randomized, sham-controlled, crossover, non-drug interventional study conducted at the Bligny Hospital Center in Briis-sous-Forges, France. Patients underwent two 15-minute individual interventions, hypnosis (A) and sham (B), in randomly assigned order (AB or BA), with a 24-h washout period between sessions.

20 COPD patients (mean FEV1/FVC <0.7) underwent two 15-minute individual sessions, Active Listening and Hypnosis, in the form of a crossover trial with a 24-h washout period. A total of 4 pairs of investigators (medical practitioners specialized in pneumonology and/or palliative care, trained in hypnotherapy) are charged with administering both sessions and obtaining patient data. Session order and assignment of investigator pair (Mp1, Mp2, Mp3 or Mp4) are counterbalanced across patients, so that in a random fashion:

- 1. Approximately half of the sample goes through Active Listening first and Hypnosis second, and approximately the other half goes through Hypnosis first and Active Listening second.
- 2. Each pair of experimenters is in charge of testing at least one patient belonging to the first half, and one patient belonging to the second half.
- 3. No prior clinical relationship shall exist between patients and medical practitioners.

Intervention Type

Behavioural

Primary outcome measure

Anxiety assessed using the STAI-6 questionnaire at baseline and immediately after intervention

Secondary outcome measures

- 1. Respiratory rate in cycles/min measured manually, following the accepted standard procedure, at baseline and immediately after intervention
- 2. Oxygen saturation (SpO2) measured with a pulse oximeter at baseline and immediately after intervention

Overall study start date

01/09/2017

Completion date

20/02/2020

Eligibility

Key inclusion criteria

- 1. Aged 35-80 years
- 2. Affiliated to a Social Security scheme or beneficiary of such a scheme
- 3. Absence of neurological disease interfering with the passing of tests
- 4. Capable of giving free, informed consent.
- 5. Severe COPD with dyspnea and distension
- 6. Hospitalized, with or without a tracheotomy
- 7. Non-obese
- 8. Predicted FEV1 <60% and FEV/FVC <70%, with distension evidenced by chest x-ray or predicted TLC >120% in pulmonary function tests
- 9. Severity marked by ongoing hospitalization, with at least one prior instance of decompensation
- 10. Dyspneic, with resting Borg Scale score ≥3
- 11. Not having yet participated in the complementary care protocol offered by the hospital, a pulmonary rehabilitation program (PRP) protocol, or any hypnosis protocol

Participant type(s)

Patient

Age group

Mixed

Sex

Both

Target number of participants

20

Total final enrolment

21

Key exclusion criteria

- 1. Pregnancy
- 2. Mechanical ventilation during the session
- 3. Known severe cardiac insufficiency
- 4. Known severe pulmonary arterial hypertension
- 5. Cancer diagnosis
- 6. Significant cognitive impairment, hypercapnic encephalopathy or confusional syndrome
- 7. Deafness
- 8. Anemia (hemoglobin ≤8 g/dl)
- 9. Psychotic pathology
- 10. Anti-epileptic treatment

Date of first enrolment

10/12/2019

Date of final enrolment

18/02/2020

Locations

Countries of recruitment

France

Study participating centre Bligny Hospital Center

Rue de Bligny Briis-sous-Forges Paris France 91640

Sponsor information

Organisation

Bligny Hospital Center

Sponsor details

Rue de Bligny Briis-sous-Forges Paris France 91640 +33 1 69 26 30 02 jb.meric@chbligny.fr

Sponsor type

Hospital/treatment centre

Website

http://www.chbligny.fr/

Funder(s)

Funder type

Hospital/treatment centre

Funder Name

Centre Hospitalier de Bligny

Funder Name

Japanese Society for the Promotion of Science (JSPS)

Funder Name

Fond pour les Soins Palliatifs

Results and Publications

Publication and dissemination plan

We expect submission to international peer-reviewed publications as soon as the first draft is ready, with local and international press releases if publication is successful. Additional dissemination strategies will be put in place by the Fondation pour les Soins Palliatifs (France) once the trial is finished.

Intention to publish date

28/02/2020

Individual participant data (IPD) sharing plan

The datasets generated and/or analysed during this study will be made public alongside the results publication.

IPD sharing plan summary

Data sharing statement to be made available at a later date

Study outputs

| Output type | Details | Date created | Date added | Peer reviewed? | Patient-facing? |
|-------------------------------|------------|--------------|------------|----------------|-----------------|
| Participant information sheet | version v2 | 19/06/2019 | 07/01/2020 | No | Yes |
| Results article | results | 01/10/2020 | 23/10/2020 | Yes | No |
| Protocol article | | 07/02/2022 | 28/02/2023 | Yes | No |