


Campus Kiel

Psychiatrie u. Psychotherapie
Kinder- und Jugendpsychiatrie
und -psychotherapie
Psychosomatik u. Psychotherapie
Institut für Sexualmedizin und
Forensische Psychiatrie u. Psychotherapie
Ambulanzzentrum
Niemannsweg 147, 24105 Kiel
www.zip-kiel.de

Campus Lübeck

Psychiatrie u. Psychotherapie
Psychosomatik u. Psychotherapie
Ambulanzzentrum
Ratzeburger Allee 160, 23538 Lübeck
www.zip-lübeck.de

Campus Kiel und Campus Lübeck

Trauma-Ambulanz 
Flucht und Migration

**Ansprechpartner: PD Dr. med. habil.
Paul Christian Baier**
Tel.: 0431 500-98175 Fax: 0431 500-
E-Mail: paulchristian.baier@uksh.de

Datum:

Use of the "humming mask" improves sleep of healthy elderly

Dirk Matti Kühn, Paul Christian Baier

Introduction

The humming mask is a massaging device stimulating the paranasal sinuses through vibration. There were anecdotal reports that sleep benefits from the use of this device. Aim of this open-label pilot study was to investigate the effect of the humming mask on sleep perception in healthy elderly subjects without relevant sleep disorders, but complaining about "bad sleep". Furthermore effects on intranasal NO were assessed.

Results from a Pilot Study

Methods: Eighteen aged subjects (12 female, 6 male, mean age 67 years, $5 < \text{PSQI} < 11$) were included in the study. As cover task the subjects were instructed to keep dream diaries. After the screening visit the study consisted of two blocks of each one week, ended by a visit. In a cross over design, subjects used the humming mask for 20 minutes directly before lights of in one block and did not in the other. Primary endpoint was change in the subjective sleep quality as assessed with a modified version of the PSQI. The secondary endpoint was subjective sleep latency as assessed by a sleep diary.

Results: Despite being blind for the study's endpoints, subjects reported improvements in subjective sleep quality (PSQI start: 8.4 ± 1.5 , without: 7.3 ± 2.4 , with: 6.4 ± 2.8 , RM-ANOVA ; $F(2,53) = 3.185$; $p = 0.0070$) and reduction in sleep latency (without: 35 ± 33 min; with: 26 ± 24 min, t-test $p = 0.08$, tendency) by the use of the humming mask. In the preliminary analyses no correlation was seen between NO increase and subjective sleep improvements.

Conclusion: Our results support the observation that use of the humming mask improves sleep (perception). There are several limitations of this pilot study. Firstly, only subjective measures were assessed. Secondly, subjects were blinded for the study outcome, but not for the intervention.



Wednesday, 26 September 2018

- 12:27 - 12:30 P235 **Proton magnetic resonance spectroscopy of brain in obstructive sleep apnea in Egyptian subjects**
H. Gharraf (Alexandria, EG)
- 12:30 - 12:33 P236 **Sleep deprivation triggers shared temporal dynamics of time and mood perception in bipolar depression**
T. Yoshilike (Milano, IT)
- 12:33 - 12:36 P237 **Athens Insomnia Scale detects depression with moderate accuracy in three Japanese settings**
H. Kadotani (Otsu, Shiga, JP)
- 12:36 - 12:39 P238 **Does sleep moderate the relationship between work-life balance and depression differentially in men and women? Findings from the North West Adelaide Health Study**
A.C. Reynolds (Adelaide, SA, AU)

Poster Session, Poster, Poster Exhibition

12:00 - 13:00

Sleep & aging 1

Chairs

U. Albrecht (Fribourg, CH)

- 12:00 - 12:03 P239 **Sleep loss and circadian phase modulate cortical connectivity but not neuronal complexity in young and older individuals**
G. Gaggioni (Liège, BE)
- 12:03 - 12:06 P240 **Sleep and circadian timing are associated with subjective and objective memory in older adults with subjective memory impairment - evidence for early targeted interventions**
J.E. Manousakis (Melbourne, VIC, AU)
- 12:06 - 12:09 P242 **Postural stability upon being awakened in the middle of the night and in the morning: comparison of lemborexant versus zolpidem extended release**
P. Murphy (Woodcliff Lake, NJ, US)
- 12:09 - 12:12 P243 **Effect of the "humming mask" on sleep perception of healthy elderly**
P.C. Baier (Kiel, DE)
- 12:12 - 12:15 P244 **Younger patients are more obese and have a more severe obstructive sleep apnea syndrome**
S. Mihaicuta (Timisoara, RO)
- 12:15 - 12:18 P245 **Sleep Disorders in an elderly population and their relationship with cognitive symptoms: an epidemiological survey**
M. Maestri (Pisa, IT)