



Dato 25-08-2016

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Sagsnr. 4-1010-161/1

Bilag til SST bidrag til opfølgning på
samråd AG den 24. juni 2016

Søgeprotokol

Projekttitel/aspekt	Kugledyner
Kontakt	Julie Bolvig Hansen/ EUB og Mette Malling /PLAN
Søgespecialist	Birgitte Holm Petersen
Senest opdateret	16. august 2016

Baggrund	Søgning for dokumentation til en redegørelse for erfaringer og evidens for brug af kugle- og kæde dyner til børn og unge med opmærksomhedsforstyrrelser (ADHD).
Søgetermer	Engelske: Ball blanket, Weighted Blanket, chain quilt, attention deficit disorder, ADHD Danske: kugledyne, kædedyne Norske:kuledyne, Hyperkinetisk forstyrrelse Svenske:bolttäcke, kedjetäcke,tyngdtäcke
Inklusions- og eksklusionskriterier	Sprog: Engelsk, dansk, norsk og svensk

Informationskilder

DATABASER	INTERFACE	FUND	DATO FOR SØGNING
Embase	OVID	12	12. august 2016
Medline	OVID	4	12. august 2016
PsycInfo	OVID	5	12. august 2016

DATABASER	INTERFACE	FUND	DATO FOR SØGNING
G-I-N International	Internettet	0	16. august 2016
Karolinska institute Swemed+	-	5	12. og 16. august 2016
The Cochrane Library	-	1	12. august 2016
HTA Databasen (CRD database)	-	0	12. august 2016
SBU, Sverige	-	0	15. august 2016

Socialstyrelsen, Sverige	-	0	15. august 2016
Helsedirektoratet, Norge	-	0	12. august 2016
Helsebiblioteket	-	1	12. august 2016
Kunnskapssenteret, Norge	-	0	12. august 2016
Netpunkt	-	3	12. august 2016
PEDro	-	0	16. august 2016
OTseeker	-	1	16. august 2016

Søgestrategi

Karolinska Institut – Swemed+

1
Kugledynen får forskernes anerkendelse Läs onlineKehlet, JacobErgoterapeuten (Köbenhavn) 2011;71(3)30-1

2
Use of Ball Blanket in attention-deficit/hyperactivity disorder sleeping problems Läs onlineHvolby, Allan; Bilengerg, NielsNordic Journal of Psychiatry 2011;65(2)89-94

3
Associations of sleep disturbance with ADHD: implications for treatment
Hvolby, Allan
ADHD Attention Deficit and Hyperactivity Disorders, 2015, Vol.7(1), pp.1-18 [Vetenskaplig publikation]
Ball blanket. a Plastic balls, diameter 49 mm and b cotton blanket... lisdexamfetamine Associations of sleep disturbance with ADHD 9 123 The ball

4
Sleep in Autism Spectrum Disorder and Attention Deficit Hyperactivity Disorder
Singh, Kanwaljit ; Zimmerman, Andrew W.
Seminars in Pediatric Neurology, June 2015, Vol.22(2), pp.113-125 [Vetenskaplig publikation]
, and significantly ameliorated core ADHD symptoms as... and physical function that can worsen ADHD symptoms... disorders in ADHD. As many as 25%-50% of children

5
Chapter 30 Autonomic disorders
Handbook of Clinical Neurology, 2004, Vol.80, pp.351-371 [Vetenskaplig publikation]
.rst REM period is shorter and slow-wave sleep... perforating vessels and vessels with small ball hemorrhages... perforating vessels and vessels with small

Helsebiblioteket

Fandt denne søgning på kuledyner - her var 7referencer som er fundet i de øvrige søgninger

Taktil stimulering - Hva er effekten av ulike kuleprodukter (kuledyne, kulevest, kulepute m.m.) for personer med for ... [nytt vindu][forhåndsvisning]

nokc-helsebiblioteket-collection-www.helsebiblioteket.no/...elser-eller-nevrologiske-lidelser/[flere treff fra denne kilden]

Søkedato: 19.11.2014 Søket er utført av Ingvild Kirkehei Nasjonalt kunnskapssenter for helsetjenesten Kilder søkt Mulige relevante søkeresultater UpToDate ...

Cochrane

Search Name:

Date Run: 12/08/16 13:22:56.609

Description:

ID	Search	Hits
#1	ball blanket*	1
#2	weighted blanket*	44
#3	weighted quilt*	5
#4	ADHD*	2269
#5	MeSH descriptor: [Attention Deficit Disorder with Hyperactivity] explode all trees	1829
#6	#1 or #2 or #3	47
#7	#4 or #5	2787
#8	#6 and #7	0
#9	#4 and #2	0
#10	#5 and #2	0

The Cochrane Central Register of Controlled Trials (CENTRAL) 2015 Issue 5

Copyright © 2015 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd.

Title	Sleep quality, pain, hba1c levels and quality of life in chronic non-malignant pain patients: A randomised double-blinded clinical study. Links Export Central Citation
Author(s)	Joergensen ME, Nielsen IK, Olesen AS, Pedersen V
Source	Pain practice
Date of Proceedings	CONFERENCE START: 2012 Feb 4 CONFERENCE END: 2012 Feb 6
Location of Proceedings	6th World Congress - World Institute of Pain Miami Beach, FL United States.
Date of	2012

Publication	
Volume	12
Pages	47
Publisher Name	Blackwell Publishing Inc.
Abstract	Chronic pain patients have a poor sleep quality (1,2) and sleep disruption increase the pathological significance of disease and reduce well being (1,2). We examined sleep quality, pain, health related quality of life (QOL) and stress in chronic non-malignant pain patients with a Ball or Placebo Blanket. A Ball (BB) or Placebo Blanket (PB) of equal size, colour and weight was randomised to 30 patients. Patients completed a 3 month sleep and pain severity diary, answered a SF-36 questionnaire and had blood samples drawn monthly. (Figure presented) Sleep disruption data are illustrated in figure 1. No significant differences were found between treatment groups ($p > 0.15$, MWUT). The BB group reduced the number of times (NO) awake during the study ($p < 0.04$, WSRT). The duration (DUR) of being awake declined significantly during the study in the PB group ($p < 0.02$). The number of times ($p < 0.006$) and duration of being out of bed was significantly reduced in the PB group ($p < 0.04$) during the study. Pain severity (nightly VAS scores) was not affected within treatments nor between treatments ($0.219 < p < 0.628$). HbA1C levels were not influenced by blanket types ($p > 0.15$, 3). Physical function improved in the BB group (3). In the PB group general and mental health improved (3). Whiplash patient's sleep quality and pain severity did not profit from having a Ball Blanket but their QOL improved significantly. Whiplash patients improved sleep quality and QOL when sleeping with a heavy placebo blanket.
EMBASE keywords	*pain; *human; *patient; *clinical study; *sleep quality; *quality of life; sleep; color; weight; questionnaire; blood sampling; mental health; chronic pain; profit; wellbeing; *hemoglobin A1c; placebo
Correspondence Address	M.E. Joergensen, Multidisciplinary Pain Centre, Anaesthesia and Intensive Care Medicine, Aarhus University Hospital, Aalborg, Denmark
Accession Number	EMBASE 70654617
DOI	10.1111/j.1533-2500.2011.00528.x
Language	eng
Publication Type	Journal: Conference Abstract
ID	CN-01035220

Embase



Database(s): **Embase** 1996 to 2016 Week 32

Search Strategy:

#	Searches	Results	Annotations
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1	ball blanket*.mp.	8
2	attention deficit disorder/ or sleep disorder/ or sleep/	138830
3	attention deficit disorder/ or ADHD*.mp.	44315
4	Attention Deficit Disorder with Hyperactivity.mp.	1275
5	weighted blanket*.mp.	8
6	chain quilt*.mp.	0
7	(bedding and linen*).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword]	34
8	2 or 3 or 4	141498
9	1 or 5 or 6 or 7	50
10	8 and 9	12

Weighted blankets and sleep in autistic children - A randomized controlled trial.

Gringras P., Green D., Wright B., Rush C., Sparrowhawk M., Pratt K., Allgar V., Hooke N., Moore D., Zaiwalla Z., Wiggs L.

Pediatrics. 134 (2) (pp 298-306), 2014. Date of Publication: 01 Aug 2014.

AN: 2014517210

OBJECTIVE: To assess the effectiveness of a weighted-blanket intervention in treating severe sleep problems in children with autism spectrum disorder (ASD). **METHODS:** This phase III trial was a randomized, placebo-controlled crossover design. Participants were aged between 5 years and 16 years 10 months, with a confirmed ASD diagnosis and severe sleep problems, refractory to community-based interventions. The interventions were either a commercially available weighted blanket or otherwise identical usual weight blanket (control), introduced at bedtime; each was used for a 2-week period before crossover to the other blanket. Primary outcome was total sleep time (TST) recorded by actigraphy over each 2-week period. Secondary outcomes included actigraphically recorded sleep onset latency, sleep efficiency, assessments of child behavior, family functioning, and adverse events. Sleep was also measured by using parent-report diaries. **RESULTS:** Seventy-three children were randomized and analysis conducted on 67 children who completed the study. Using objective measures, the weighted blanket, compared with the control blanket, did not increase TST as measured by actigraphy and adjusted for baseline TST. There were no group differences in any other objective or subjective measure of sleep, including behavioral outcomes. On subjective preference measures, parents and children favored the weighted blanket. **CONCLUSIONS:** The use of a weighted blanket did not help children with ASD sleep for a longer period of time, fall asleep significantly faster, or wake less often. However, the weighted blanket was favored by children and parents, and blankets were well tolerated over this period. Copyright © 2014 by the American Academy of Pediatrics.

Institution

(Gringras, Rush, Pratt) Children's Sleep Medicine, Evelina London Children's Hospital, St Thomas' Hospital, London, United Kingdom (Green) Centre for Rehabilitation, Oxford Brookes University, Oxford, United Kingdom

(Wright, Hooke, Moore) Lime Trees Child and Family Unit, York, United Kingdom

(Sparrowhawk, Allgar, Wiggs) Department of Psychology, Oxford Brookes University, Oxford, United Kingdom

(Zaiwalla) Department of Clinical Neurophysiology, John Radcliffe Hospital, Oxford, United Kingdom

Publisher

American Academy of Pediatrics (141 Northwest Point Blvd, P.O. Box 927, Elk Grove Village IL 60007-1098, United States)

Weighted blankets and sleep in autistic children-a randomised controlled trial.

Gringras P., Green D., Wright B., Rush C., Sparrowhawk M., Pratt K., Allgar V., Hooke N., Moore D., Zaiwalla Z., Wiggs L.

Journal of Sleep Research. Conference: 22nd Congress of the European Sleep Research Society Tallinn Estonia.

Conference Start: 20140916 Conference End: 20140920. Conference Publication: (var.pagings). 23 (pp 320), 2014.

Date of Publication: September 2014.

AN: 71715870

Objective: To assess the effectiveness of a weighted blanket intervention in treating severe sleep problems in children with autism spectrum disorders (ASD). Method: This phase III trial was a randomised, placebo controlled cross-over design. Participants were aged between 5 years and 16 years 10 months, with a confirmed ASD diagnosis and severe sleep problems, refractory to community based interventions. The interventions were either a commercially available weighted blanket (weighted) or otherwise identical usual weight blanket (control), introduced at bedtime; each was used for a two week period before cross-over to the other blanket. Primary outcome was total-sleep-time (TST) recorded by actigraphy over each 2 week period. Secondary outcomes included actigraphically recorded sleep onset latency, sleep efficiency, assessments of child behaviour, family functioning and adverse events. Sleep was also measured using parent-report diaries. Results: 73 children were randomized and analysis conducted on 67 children who completed the study. Using objective measures, in comparison to the control blanket the weighted blanket did not increase TST as measured by actigraphy and adjusted for baseline TST. There were no group differences in any other objective or subjective measure of sleep including behavioural outcomes. On subjective preference measures parents and children favoured the weighted blanket. Conclusions: The use of a weighted blanket did not help children sleep for a longer period of time, fall asleep significantly faster, or wake less often. However, the weighted blanket was favoured by children and parents and blankets were well tolerated over this period.

Institution

(Gringras, Rush, Pratt) Children's Sleep Medicine, Evelina London Children's Hospital, London, United Kingdom

(Green) Centre for Rehabilitation, Oxford Brookes University, Oxford, United Kingdom

(Wright, Allgar, Hooke, Moore) Lime Trees Child and Family Unit, York, United Kingdom

(Sparrowhawk, Wiggs) Department of Psychology, Oxford Brookes University, Oxford, United Kingdom

(Zaiwalla) Department of Clinical Neurophysiology, John Radcliffe Hospital, Oxford, United Kingdom

Publisher

Blackwell Publishing Ltd

Cognitive assistive technology and professional support in everyday life for adults with ADHD.

Lindstedt H., Umb-Carlsson O.

Disability and Rehabilitation: Assistive Technology. 8 (5) (pp 402-408), 2013. Date of Publication: September 2013.

AN: 23992459

Purpose: An evaluation of a model of intervention in everyday settings, consisting of cognitive assistive technology (CAT) and support provided by occupational therapists to adults with attention deficit hyperactivity disorder (ADHD).

The purpose was to study how professional support and CAT facilitate everyday life and promote community participation of adults with ADHD. Method: The intervention was implemented in five steps and evaluated in a 15-month study (March 2006 = T1 to June 2007 = T2). One questionnaire and one protocol describe the CATs and provided support. Two questionnaires were employed at T1 and T2 for evaluation of the intervention in everyday settings.

- Results: The participants tried 74 CATs, with weekly schedules, watches and weighted blankets being most highly valued. Carrying out a daily routine was the most frequent support. More participants were working at T2 than at T1. Frequency of performing and satisfaction with daily occupations as well as life satisfaction were stable over the one-year period. Conclusions: The results indicate a higher frequency of participating in work but only a tendency of increased subjectively experienced life satisfaction. However, to be of optimal usability, CAT requires individually tailored, systematic and structured support by specially trained professionals. Implications for Rehabilitation Adults with ADHD report an overall satisfaction with the cognitive assistive technology, particularly with low-technological products such as weekly schedules and weighted blankets. Using cognitive assistive technology in everyday settings indicate a higher frequency of participating in work, but only a tendency of increased subjectively experienced life satisfaction for adults with ADHD. Prescription of cognitive assistive technology to adults with ADHD in everyday settings requires individually tailored, systematic and structured support by specially trained professionals. © 2013 Informa UK Ltd All.
- 3.

Institution

(Lindstedt, Umb-Carlsson) Disability and Habilitation, Department of Public Health and Caring Sciences, Uppsala University, SE-751 22 Uppsala, Sweden

Question 2: Do weighted blankets improve sleep in children with an autistic spectrum disorder?.

Creasey N., Finlay F.

Archives of disease in childhood. 98 (11) (pp 919-920), 2013. Date of Publication: 01 Nov 2013.

4. AN: 24123405

Institution

(Creasey, Finlay) Community Child Health Department, Bath, UK

Do weighted blankets improve sleep in children with an autistic spectrum disorder?.

Creasey N., Finlay F.

Archives of Disease in Childhood. 98 (11) (pp 919-920), 2013. Date of Publication: November 2013.

5. AN: 2013655942

Institution

(Creasey, Finlay) Community Child Health Department, Bath NHS House, Newbridge Hill, Bath BA1 3QE, United

Kingdom

Publisher

BMJ Publishing Group (Tavistock Square, London WC1H 9JR, United Kingdom)

Does treatment of ADHD sleeping problems improve attention, hyperactivity and impulsiveness in children with attention deficit hyperactivity disorder?.

Hvolby A.

European Child and Adolescent Psychiatry. Conference: 15th International Congress of European Society for Child and Adolescent Psychiatry, ESCAP 2013 Dublin Ireland. Conference Start: 20130706 Conference End: 20130710.

Conference Publication: (var.pagings). 22 (2 SUPPL. 1) (pp S242), 2013. Date of Publication: July 2013.

AN: 71240394

Introduction: Sleep difficulties with no explanatory cause can be mistaken for ADHD, and that the kind of symptoms observed in primary sleep disorders can often be mistaken for ADHD as they are very similar to core symptoms of ADHD. These disorders are found to be related to hyperactivity and inattentiveness, and the very treatment of the sleep disorders has reduced-or even cured-both hyperactivity and inattentiveness. Studies using actigraphy found increased sleep onset latency and increased day-to-day variability in the sleep-wake pattern of children with ADHD compared with children without ADHD. Aims: Based on actigraphic surveillance, sleep diary, ADHD symptom rating (ADHD-RS), functional impairment scale (WFIRS) and daily function (DDODS), this study will evaluate the effect of treating sleep in a sample of 6-13 year-old ADHD children. The sleep latency, number of awakenings and total length of sleep will be measured, as will the possible influence on parent and teacher rated ADHD symptom load and Quality of life. Methods participants: A total of 35 children aged 6 years to 13 years are included. All referred to a child and adolescent psychiatric department and diagnosed with ADHD. The diagnostic evaluations is based on face-to-face parent interviews and a clinical assessment, and the hyperkinetic disorder (ADHD) is diagnosed in accordance with the ICD-10 Classification of Mental and Behavioural Dis-order. Methods: To improve sleep we use a ball blanket, which former has shown effect on sleep improvement. The children will sleep with the ball blanket in 8 weeks. Parents are asked to evaluate sleep patterns using sleep questionnaire and sleep diary. Quality of life, using QoL-WFIRS rating scale, daily functional level using DDODS and parents and teachers are asked to evaluate ADHD symptoms before, during and after the child using the Ball Blanket. Actigraph will be used to obtain an objective view of the sleep pattern. Sleep recording will take place in the children's own home and will be obtained in 3 periods of 7 days during the 8 weeks. Results: The study is ongoing. We will present preliminary result from the study, regarding eventual effect on ADHD core symptoms and child and family quality of life by treating ADHD related sleep problems. Our hypotheses is, based on other studies, that prolonged use of a ball blanket in children with ADHD and sleeping difficulties not only will improve their sleep, but also will influence on their ADHD symptoms. Clinical relevance: Provide this study finds impact on treating sleep in children with ADHD on the ADHD core symptoms, the consequence may be more focus on detecting sleep problems in children with ADHD, treating the sleep problem effectively and maybe that way reduce the use of stimulants.

Institution

(Hvolby) Psychiatri of Region of Southern Denmark, Department of Child Psychiatry, Esbjerg, Denmark

Publisher

D. Steinkopff-Verlag

Evaluation of the effect of the standard treatment of sleeping disorders in children.

Vinding R., Debes N.M.

European Journal of Paediatric Neurology. Conference: 10th European Paediatric Neurology Society Congress, EPNS 2013 Brussels Belgium. Conference Start: 20130925 Conference End: 20130928. Conference Publication: (var.pagings). 17 (pp S140), 2013. Date of Publication: September 2013.

AN: 71183080

7. Objectives: In this study we will evaluate the effect of the standard treatment of sleeping disorders in children without comorbidity. The study is still ongoing and the examinations will be finished in July 2013. Background: Sleeping disabilities are common in children. Sleep is extremely important for the psychomotor and cognitive development of children. In our clinic, ball blankets are the first choice of treatment and with insufficient effect, melatonin is tried. However, in the present literature, there are only a few studies examining treatment of sleeping disorders in children without co- morbidity. Melatonin is shown to be effective in children with insomnia. Material and methods: We include 10 children with sleeping disorders without any comorbidity. The children are between 10 and 16 years old. They are examined with ARMBAND analysis during three nights and with a structured questionnaire about quality of sleep. Afterwards, the children will be treated according to the standard treatment procedure in our clinic, namely initially with a ball blanket and if the effect is insufficient, treatment with tablet melatonin will be started. The children are reexamined with ARMBAND analysis during 3 nights and questionnaire after 6 weeks treatment with ball blanket and after 3 weeks treatment with melatonin. Results and conclusions: By the end of this study, we hope to increase the knowledge about treatment of sleeping disorders in children and we hope to be able to optimize the treatment and give more sufficient information to parents and children.

Institution

(Vinding, Debes) Paediatric Department, Naestved Hospital, Denmark

Publisher

W.B. Saunders Ltd

Sleep quality, pain, hba1c levels and quality of life in chronic non-malignant pain patients: A randomised double-blinded clinical study.

Joergensen M.E., Nielsen I.K., Olesen A.S., Pedersen V.

Pain Practice. Conference: 6th World Congress - World Institute of Pain Miami Beach, FL United States. Conference Start: 20120204 Conference End: 20120206. Conference Publication: (var.pagings). 12 (pp 47), 2012. Date of Publication: February 2012.

8. AN: 70654617

Chronic pain patients have a poor sleep quality (1,2) and sleep disruption increase the pathological significance of disease and reduce well being (1,2). We examined sleep quality, pain, health related quality of life (QOL) and stress in chronic non-malignant pain patients with a Ball or Placebo Blanket. A Ball (BB) or Placebo Blanket (PB) of equal size, colour and weight was randomised to 30 patients. Patients completed a 3 month sleep and pain severity diary, answered a SF-36 questionnaire and had blood samples drawn monthly. (Figure presented) Sleep disruption data are

illustrated in figure 1. No significant differences were found between treatment groups ($p > 0.15$, MWUT). The BB group reduced the number of times (NO) awake during the study ($p < 0.04$, WSRT). The duration (DUR) of being awake declined significantly during the study in the PB group ($p < 0.02$). The number of times ($p < 0.006$) and duration of being out of bed was significantly reduced in the PB group ($p < 0.04$) during the study. Pain severity (nightly VAS scores) was not affected within treatments nor between treatments ($0.219 < p < 0.628$). HbA1C levels were not influenced by blanket types ($p > 0.15$, 3). Physical function improved in the BB group (3). In the PB group general and mental health improved (3). Whiplash patient's sleep quality and pain severity did not profit from having a Ball Blanket but their QOL improved significantly. Whiplash patients improved sleep quality and QOL when sleeping with a heavy placebo blanket.

Institution

(Joergensen, Nielsen, Olesen) Multidisciplinary Pain Centre, Anaesthesia and Intensive Care Medicine, Aarhus University Hospital, Aalborg, Denmark (Pedersen) Quality and Patient Safety Unit, Vendsyssel Hospital, Aalborg University, Hjoerring, Denmark

Publisher

Blackwell Publishing Inc.

Use of Ball Blanket in attention-deficit/hyperactivity disorder sleeping problems.

Hvolby A., Bilenberg N.

Nordic Journal of Psychiatry. 65 (2) (pp 89-94), 2011. Date of Publication: April 2011.

AN: 2011149466

Objectives: Based on actigraphic surveillance, attention-deficit/ hyperactivity disorder (ADHD) symptom rating and sleep diary, this study will evaluate the effect of Ball Blanket on sleep for a sample of 8-13-year-old children with ADHD. Design: Case-control study. Setting: A child and adolescent psychiatric department of a teaching hospital. Participants: 21 children aged 8-13 years with a diagnosis of ADHD and 21 healthy control subjects. Intervention: Sleep was monitored by parent-completed sleep diaries and 28 nights of actigraphy. For 14 of those days, the child slept with a Ball Blanket. Main outcome measures: The sleep latency, number of awakenings and total length of sleep was measured, as was the possible influence on parent-and teacher-rated ADHD symptom load. Results: The results

9. of this study will show that the time it takes for a child to fall asleep is shortened when using a Ball Blanket. The time it takes to fall asleep when using the Ball Blanket is found to be at the same level as the healthy control subjects. Teacher rating of symptoms show an improvement in both activity levels and attention span of approximately 10% after using the Ball Blankets. Conclusions: The results of this study show that the use of Ball Blankets is a relevant and effective treatment method with regard to minimizing sleep onset latency. We find that the use of Ball Blankets for 14-days improves the time it takes to fall asleep, individual day-to-day variation and the number of awakenings to a level that compares with those found in the healthy control group. Furthermore, we find that the use of Ball Blankets significantly reduces the number of nights that the ADHD child spends more than 30 min falling asleep from 19% to 0%. © 2011 Informa Healthcare.

Institution

(Hvolby) Department of Child and Adolescent Psychiatry, Region of Southern Denmark, Gl. Vardevej 101, 6715 Esbjerg N, Denmark (Bilenberg) Department of Child and Adolescent Psychiatry, Region of Southern Denmark,

University Hospital of Odense, Sdr. Boulevard 29, 5000 Odense, Denmark

Publisher

Informa Healthcare (69-77 Paul Street, London EC2A 4LQ, United Kingdom)

Use of ball blanket in attention deficit hyperactivity disorder sleeping problems.

Hvolby A., Bilenberg N.

European Child and Adolescent Psychiatry. Conference: 14th International Congress of ESCAP European Society for Child and Adolescent Psychiatry Helsinki Finland. Conference Start: 20110611 Conference End: 20110615.

Conference Publication: (var.pagings). 20 (pp S120), 2011. Date of Publication: June 2011.

AN: 70489532

Introduction: Sleep deprivation in children with ADHD is a common reported complain. We know that sleep difficulties with no explanatory cause can be mistaken for ADHD, and that the kind of symptoms observed in primary sleep disorders - such as sleep-related breathing disorders - can often be mistaken for ADHD as they are very similar to core symptoms of ADHD. Objectives: Based on actigraphic surveillance, ADHD symptom rating and sleep diary, this study will evaluate the effect of ball blanket on sleep for a sample of 8-13 years old children with ADHD Design: Case-control study. Setting: A child and adolescent psychiatric department of a teaching hospital. Participants: 21 children aged 8-13 years with a diagnosis of ADHD and 21 healthy control subjects. Intervention: Sleep was
10. monitored by parent-completed sleep diaries and 28 nights of actigraphy. For 14 of those days, the child slept with a ball blanket. Results: The time it takes to fall asleep when using the ball blanket is shortened and found to be at the same level as the healthy control subjects. Furthermore, we found that the use of ball blankets significantly reduced the number of nights that the ADHD child spends more than 30 min falling asleep from 19 to 0%. Teacher rating of symptoms showed an improvement in both activity levels and attention span of approx. 10% after using the ball blankets. Discussion/conclusions: Use of ball blankets is a relevant and effective treatment method with regard to minimising sleep onset latency. We found that the use of Ball Blankets for 14 days improved not only sleep onset problems but also improved the daytime functioning in children with ADHD.

Institution

(Hvolby) Psychiatry of Region of Southern Denmark, Child and Adolescent Psychiatric Department, ESBJ, Denmark

(Bilenberg) Psychiatry of Region of Southern Denmark, Child and Adolescent Psychiatric Department, Odense, Denmark

Publisher

D. Steinkopff-Verlag

Medline

Database(s): **Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations and Ovid MEDLINE(R)** 1946 to Present

Search Strategy:

#	Searches	Results	Annotations
1	ball blanket*.mp.	1	
2	attention deficit disorder/ or sleep disorder/ or sleep/	80283	
3	attention deficit disorder/ or ADHD*.mp.	27425	
4	Attention Deficit Disorder with Hyperactivity.mp.	23393	
5	weighted blanket*.mp.	4	
6	chain quilt*.mp. (bedding and linen*).mp. [mp=title, abstract, original title, name of substance word, subject	0	
7	heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier]	3693	
8	2 or 3 or 4	84408	
9	1 or 5 or 6 or 7	3695	
10	8 and 9	170	
11	1 or 5 or 6	5	
12	8 and 11	4	
13	Sleep Wake Disorders/ or "Bedding and Linens"/ or weighted blanket*.mp.	21410	
14	Sleep Wake Disorders/ or weighted blanket*.mp.	17735	
15	8 and 13	17895	

Weighted blankets and sleep in autistic children--a randomized controlled trial.

Gringras P; Green D; Wright B; Rush C; Sparrowhawk M; Pratt K; Allgar V; Hooke N; Moore D; Zaiwalla Z; Wiggs L.
Pediatrics. 134(2):298-306, 2014 Aug.

[Clinical Trial, Phase III. Journal Article. Multicenter Study. Randomized Controlled Trial]

UI: 25022743

OBJECTIVE: To assess the effectiveness of a weighted-blanket intervention in treating severe sleep problems in

1. children with autism spectrum disorder (ASD).

METHODS: This phase III trial was a randomized, placebo-controlled crossover design. Participants were aged between 5 years and 16 years 10 months, with a confirmed ASD diagnosis and severe sleep problems, refractory to community-based interventions. The interventions were either a commercially available weighted blanket or otherwise identical usual weight blanket (control), introduced at bedtime; each was used for a 2-week period before crossover to the other blanket. Primary outcome was total sleep time (TST) recorded by actigraphy over each 2-week period. Secondary outcomes included actigraphically recorded sleep-onset latency, sleep efficiency, assessments of child

behavior, family functioning, and adverse events. Sleep was also measured by using parent-report diaries.

RESULTS: Seventy-three children were randomized and analysis conducted on 67 children who completed the study. Using objective measures, the weighted blanket, compared with the control blanket, did not increase TST as measured by actigraphy and adjusted for baseline TST. There were no group differences in any other objective or subjective measure of sleep, including behavioral outcomes. On subjective preference measures, parents and children favored the weighted blanket.

CONCLUSIONS: The use of a weighted blanket did not help children with ASD sleep for a longer period of time, fall asleep significantly faster, or wake less often. However, the weighted blanket was favored by children and parents, and blankets were well tolerated over this period. Copyright © 2014 by the American Academy of Pediatrics.

Status

MEDLINE

Authors Full Name

Gringras, Paul; Green, Dido; Wright, Barry; Rush, Carla; Sparrowhawk, Masako; Pratt, Karen; Algar, Victoria; Hooke, Naomi; Moore, Danielle; Zaiwalla, Zenobia; Wiggs, Luci.

Institution

Gringras,Paul. Children's Sleep Medicine, Evelina London Children's Hospital, St Thomas' Hospital, London, United Kingdom; paul.gringras@gstt.nhs.uk. Green,Dido. Centre for Rehabilitation and.

Wright,Barry. Lime Trees Child and Family Unit, York, England; and.

Rush,Carla. Children's Sleep Medicine, Evelina London Children's Hospital, St Thomas' Hospital, London, United Kingdom;

Sparrowhawk,Masako. Department of Psychology, Oxford Brookes University, Oxford, United Kingdom;

Pratt,Karen. Children's Sleep Medicine, Evelina London Children's Hospital, St Thomas' Hospital, London, United Kingdom;

Algar,Victoria. Department of Psychology, Oxford Brookes University, Oxford, United Kingdom;

Hooke,Naomi. Lime Trees Child and Family Unit, York, England; and.

Moore,Danielle. Lime Trees Child and Family Unit, York, England; and.

Zaiwalla,Zenobia. Department of Clinical Neurophysiology, John Radcliffe Hospital, Oxford, United Kingdom.

Wiggs,Luci. Department of Psychology, Oxford Brookes University, Oxford, United Kingdom;

Date Created

20140802

Year of Publication

2014

Question 2: Do weighted blankets improve sleep in children with an autistic spectrum disorder?. [Review]

2. Creasey N; Finlay F.

Archives of Disease in Childhood. 98(11):919-20, 2013 Nov.

[Journal Article. Review]

UI: 24123405

Status

MEDLINE

Authors Full Name

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Date Created

20131014

Year of Publication

2013

Cognitive assistive technology and professional support in everyday life for adults with ADHD.

Lindstedt H; Umb-Carlsson O.

Disability & Rehabilitation Assistive Technology. 8(5):402-8, 2013 Sep.

[Journal Article]

UI: 23992459

PURPOSE: An evaluation of a model of intervention in everyday settings, consisting of cognitive assistive technology (CAT) and support provided by occupational therapists to adults with attention deficit hyperactivity disorder (ADHD).

The purpose was to study how professional support and CAT facilitate everyday life and promote community participation of adults with ADHD.

METHOD: The intervention was implemented in five steps and evaluated in a 15-month study (March 200 = T1 to June 2007 = T2). One questionnaire and one protocol describe the CATs and provided support. Two questionnaires were employed at T1 and T2 for evaluation of the intervention in everyday settings.

3.

RESULTS: The participants tried 74 CATs, with weekly schedules, watches and weighted blankets being most highly valued. Carrying out a daily routine was the most frequent support. More participants were working at T2 than at T1. Frequency of performing and satisfaction with daily occupations as well as life satisfaction were stable over the one-year period.

CONCLUSIONS: The results indicate a higher frequency of participating in work but only a tendency of increased subjectively experienced life satisfaction. However, to be of optimal usability, CAT requires individually tailored, systematic and structured support by specially trained professionals. Implications for Rehabilitation Adults with ADHD report an overall satisfaction with the cognitive assistive technology, particularly with low-technological products such as weekly schedules and weighted blankets. Using cognitive assistive technology in everyday settings indicate a higher frequency of participating in work, but only a tendency of increased subjectively experienced life satisfaction for adults with ADHD. Prescription of cognitive assistive technology to adults with ADHD in everyday settings requires

individually tailored, systematic and structured support by specially trained professionals.

Status

MEDLINE

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Date Created

20130902

Year of Publication

2013

Use of Ball Blanket in attention-deficit/hyperactivity disorder sleeping problems.

Hvolby A; Bilenberg N.

Nordic Journal of Psychiatry. 65(2):89-94, 2011 Apr.

[Journal Article. Research Support, Non-U.S. Gov't]

UI: 20662681

OBJECTIVES: Based on actigraphic surveillance, attention-deficit/hyperactivity disorder (ADHD) symptom rating and sleep diary, this study will evaluate the effect of Ball Blanket on sleep for a sample of 8-13-year-old children with ADHD.

DESIGN: Case-control study.

SETTING: A child and adolescent psychiatric department of a teaching hospital.

4. **PARTICIPANTS:** 21 children aged 8-13 years with a diagnosis of ADHD and 21 healthy control subjects.

INTERVENTION: Sleep was monitored by parent-completed sleep diaries and 28 nights of actigraphy. For 14 of those days, the child slept with a Ball Blanket.

MAIN OUTCOME MEASURES: The sleep latency, number of awakenings and total length of sleep was measured, as was the possible influence on parent- and teacher-rated ADHD symptom load.

RESULTS: The results of this study will show that the time it takes for a child to fall asleep is shortened when using a Ball Blanket. The time it takes to fall asleep when using the Ball Blanket is found to be at the same level as the healthy control subjects. Teacher rating of symptoms show an improvement in both activity levels and attention span of approximately 10% after using the Ball Blankets.

CONCLUSIONS: The results of this study show that the use of Ball Blankets is a relevant and effective treatment

method with regard to minimizing sleep onset latency. We find that the use of Ball Blankets for 14-days improves the time it takes to fall asleep, individual day-to-day variation and the number of awakenings to a level that compares with those found in the healthy control group. Furthermore, we find that the use of Ball Blankets significantly reduces the number of nights that the ADHD child spends more than 30 min falling asleep from 19% to 0%.

Status

MEDLINE

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Date Created

20110314

Year of Publication

2011

Psyinfo



Database(s): **PsycINFO** 1806 to July Week 4 2016

Search Strategy:

#	Searches	Results	Annotations
1	ball blanket*.mp.	1	
2	attention deficit disorder/ or sleep disorder/ or sleep/	28188	
3	attention deficit disorder/ or ADHD*.mp.	24426	
4	Attention Deficit Disorder with Hyperactivity.mp.	17271	
5	weighted blanket*.mp.	5	
6	chain quilt*.mp.	0	
7	(bedding and linen*).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures]	0	
8	2 or 3 or 4	49116	

9	1 or 5 or 6 or 7	6
10	8 and 9	3
11	1 or 5 or 6	6
12	8 and 11	3
13	Sleep Wake Disorders/ or "Bedding and Linens"/ or weighted blanket*.mp.	5
14	Sleep Wake Disorders/ or weighted blanket*.mp.	5
15	8 and 13	2

Weighted blankets and sleep in autistic children-A randomized controlled trial. [References].

Gringras, Paul; Green, Dido; Wright, Barry; Rush, Carla; Sparrowhawk, Masako; Pratt, Karen; Allgar, Victoria; Hooke, Naomi; Moore, Danielle; Zaiwalla, Zenobia; Wiggs, Luci.

Pediatrics. Vol.134(2), Aug 2014, pp. 298-306.

AN: Peer Reviewed Journal: 2014-32684-017.

Objective: To assess the effectiveness of a weighted-blanket intervention in treating severe sleep problems in children with autism spectrum disorder (ASD). Methods: This phase III trial was a randomized, placebo-controlled crossover design. Participants were aged between 5 years and 16 years 10 months, with a confirmed ASD diagnosis and severe sleep problems, refractory to community-based interventions. The interventions were either a commercially available weighted blanket or otherwise identical usual weight blanket (control), introduced at bedtime; each was used for a 2-week period before crossover to the other blanket. Primary outcome was total sleep time (TST) recorded by actigraphy over each 2-week period. Secondary outcomes included actigraphically recorded sleep onset latency, sleep efficiency, assessments of child behavior, family functioning, and adverse events. Sleep was also measured by using parent-report diaries. Results: Seventy-three children were randomized and analysis conducted on 67 children who completed the study. Using objective measures, the weighted blanket, compared with the control blanket, did not increase TST as measured by actigraphy and adjusted for baseline TST. There were no group differences in any other objective or subjective measure of sleep, including behavioral outcomes. On subjective preference measures, parents and children favored the weighted blanket. Conclusions: The use of a weighted blanket did not help children with ASD sleep for a longer period of time, fall asleep significantly faster, or wake less often. However, the weighted blanket was favored by children and parents, and blankets were well tolerated over this period. (PsycINFO Database Record (c) 2015 APA, all rights reserved) (journal abstract)

Publication Date

Aug 2014

Year of Publication

2014

Publication History

Accepted: Apr 2014.

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Copyright

HOLDER: The American Academy of Pediatrics YEAR: 2014

Cognitive assistive technology and professional support in everyday life for adults with ADHD. [References].

Lindstedt, Helena; Umb-Carlsson, Oie.

Disability and Rehabilitation: Assistive Technology. Vol.8(5), Sep 2013, pp. 402-408.

AN: Peer Reviewed Journal: 2013-31578-007.

Purpose: An evaluation of a model of intervention in everyday settings, consisting of cognitive assistive technology (CAT) and support provided by occupational therapists to adults with attention deficit hyperactivity disorder (ADHD).

The purpose was to study how professional support and CAT facilitate everyday life and promote community participation of adults with ADHD. Method: The intervention was implemented in five steps and evaluated in a 15-month study (March 2006 = T1 to June 2007 = T2). One questionnaire and one protocol describe the CATs and provided support. Two questionnaires were employed at T1 and T2 for evaluation of the intervention in everyday settings. Results: The participants tried 74 CATs, with weekly schedules, watches and weighted blankets being most highly valued. Carrying out a daily routine was the most frequent support. More participants were working at T2 than at T1. Frequency of performing and satisfaction with daily occupations as well as life satisfaction were stable over the one-year period. Conclusions: The results indicate a higher frequency of participating in work but only a tendency of increased subjectively experienced life satisfaction. However, to be of optimal usability, CAT requires individually tailored, systematic and structured support by specially trained professionals. (PsycINFO Database Record (c) 2015

2. APA, all rights reserved) (journal abstract)

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2013

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First Posting: Apr 2013

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First Submitted: Apr 2012.

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Other Publishers

Taylor & Francis, United Kingdom

Copyright

HOLDER: Informa UK Ltd. YEAR: 2013

Pilot study of a sensory room in an acute inpatient psychiatric unit. [References].

3. Novak, Theresa; Scanlan, Justin; McCaul, Damien; MacDonald, Nathan; Clarke, Timothy.

Australasian Psychiatry. Vol.20(5), Oct 2012, pp. 401-406.

AN: Peer Reviewed Journal: 2013-11859-007.

Objective: The use of sensory rooms (also known as comfort rooms) to reduce seclusion rates has generated a great deal of interest. This study examined the outcomes associated with the introduction of a sensory room in an acute inpatient psychiatric unit. Method: Consumers rated distress and staff rated a variety of disturbed behaviours before and after each use of the room. Items used during each episode were recorded. Results: Use of the room was associated with significant reductions in distress and improvements in a range of disturbed behaviours. Those individuals who used the weighted blanket reported significantly greater reductions in distress and clinician-rated anxiety than those who did not. No changes were noted in rates of seclusion or aggression. Conclusions: The sensory room was an effective intervention to ameliorate distress and disturbed behaviour, although this did not translate into reductions in overall rates of seclusion or aggression. Weighted blankets appear to be particularly useful. (PsycINFO Database Record (c) 2013 APA, all rights reserved) (journal abstract)

Publication Date

Oct 2012

Year of Publication

2012

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Other Publishers

Blackwell Publishing, United Kingdom; Informa Healthcare, US

Copyright

HOLDER: The Royal Australian and New Zealand College of Psychiatrists YEAR: 2012

The weighted blanket competency training program: Adult mental health populations.

Champagne, Tina Tessier.

Dissertation Abstracts International: Section B: The Sciences and Engineering. Vol.71(7-B),2011, pp. 4190.

AN: Dissertation Abstract: 2011-99020-366.

4. The focus of this doctoral project is to create practical tools to help ensure the safe, client-centered use of weighted blankets with adult mental health consumers. The American Occupational Therapy Association's (AOTA) Centennial Vision focuses on occupational therapists taking a leadership role within their respective practice areas. Occupational therapists have the fundamental knowledge base necessary from which to take a leadership role in the national mental health initiatives to help create a more nurturing, trauma-informed, and recovery focused system of care. Innovative tools, such as weighted blankets, are being used within mental health care settings as part of this mission, although to engage in evidence-based practice, competency-based staff training and more research are needed. This doctoral project presents initial training, practice, and research tools from which to develop the weighted blanket competency-training program, to help ensure weighted blankets are used appropriately and to continue to establish an evidence base. (PsycINFO Database Record (c) 2012 APA, all rights reserved)

Publication Date

2011

Year of Publication

2011

Other Serial Titles

Dissertation Abstracts International

An integrated multidisciplinary approach to the design of therapeutic devices for people with mental illness and pervasive developmental disorders.

Mullen, Brian A.

Dissertation Abstracts International: Section B: The Sciences and Engineering. Vol.70(12-B),2010, pp. 7812.

AN: Dissertation Abstract: 2010-99120-251.

This dissertation presents a systematic, integrated approach to the design and development of an evidence-based sensory supportive assistive technology for people with mental illness. A systematic integrated design approach and a set of modified design decision-making tools has been developed based on principles and theory of traditional engineering and design of assistive technologies. Specifically, the research provides a vehicle to quickly and successfully go from bench top to bedside and back by systematically integrating fundamental scientific discoveries, market research, and technology research and development in a rigorous and traceable way. An evidence base for the use of weighted blankets, weighted vests, and the novel deep pressure application system has been developed. Ten IRB approved human subjects studies, including pilot studies, with approximately 250 human subject participants were conducted. The studies collected a range of measures to explore safety, efficacy, function, design, research methodologies, and in situ protocols. The populations studied included typical adults, acute mentally ill adults in a locked mental health care facility, typical adults under stress, children with autism, and experts in the fields of research and use of DPTS modalities. These studies required the integration of multiple disciplines including engineering, nursing, occupational therapy, psychology, speech language pathology, entrepreneurship, and marketing. Through the implementation of the integrated design process and decision support tools, a novel deep pressure application system was developed: DeePAD. DeePAD was based on the scientific findings, responses, and experience gained from integrated clinical research studies. DeePAD has been verified to function in situ and has been verified to be adoptable. The Braided design approach and modified Pugh's Method decision-making tools have resulted in the first critical step from general design principles and guidelines to a systematic integrated and traceable early stage design innovation methodology. This integrated multidisciplinary design approach has overcome the heterogeneity across cognitive, social, behavioral, and communication domains of people with mental illness while providing a 'single user' experience, thus reducing the risk of abandonment. This work is the first to provide design engineers a systematic, integrated design approach to develop adoptable evidence-based sensory supportive assistive technologies for people with mental illness and pervasive developmental disorders. (PsycINFO Database Record (c) 2015 APA, all rights reserved)

Publication Date

2010

Year of Publication

2010

Other Serial Titles

Netpunkt (Danske forskningsbibliotekers database)

1

Use of Ball Blanket in attention-deficit/hyperactivity disorder sleeping problems

[Fold ind](#)

Emne: søvnforstyrrelser ; ADHD ; børn ; behandling ; sansestimulation ; kugledyner

TIDSSKRIFTSARTIKEL: Nordic journal of psychiatry. - Vol. 65, nr. 2 (2011). - S. 89-94 : ill.
Allan Hvolby, Niels Bilenberg

2

Kugledynen får forskernes anerkendelse

[Fold ind](#)

Emne: ADHD ; børn ; adfærdsforstyrrelser ; søvn ; sanseintegration ; behandling ; kugledyner
ADHD-børns søvn bliver væsentligt forbedret, hvis de falder i søvn under en kugledyne

TIDSSKRIFTSARTIKEL: Ergoterapeuten. - Årg. 72, nr. 3 (2011). - S. 30-31 : ill.

3

Søe Jensen, Birgitte

"Interventionsundersøgelse af effekt ved brug af kugledyner hos 2-12-årige børn med sanseintegrationsproblemer" : en kvantitativ interventionsundersøgelse opgjort på baggrund af forælderreportering

Birgitte Søe Jensen, Pernille Worm Pasquali

BOG: Odense, 2006. - 77 s.

Googlescholar

Der er søg her fordi fik oplysning om at der kunne være et svensk projekt i gang. Det lykkedes ikke at finde det men disse fire referencer kom frem.

Søgt på de svenske søgeord. Fundet 4 relevante

1. [\[PDF\] ATT LEVA MED ADHD](#)

M Carlsson - psykologforbundet.se

... Det finns olika former av hjälpmedel, exempelvis tyngdtäcke (**bolltäcke** och kedjetäcke), timstock och handifon som en arbetsterapeut kan skriva ut (Hjälpmedelsinstitutet, 2012).

Hjälpmedelsinstitutets rapport visar att 10 procent av personer med **ADHD** har kognitiva ...

[Relaterede artikler](#)[CiterGem](#)[Mere](#)

[\[PDF\] diva-portal.org](#)

2. [\[PDF\] Användning av tyngdtäcke och dess inverkan på sömn](#)

B Andersson, M Vadman, L Sjöberg - 2012 - diva-portal.org

... En studie (20) om **bolltäcke** har gjorts på barn med **ADHD** som har sömnsvarigheter. ...

Föräldrar och lärare upplevde också att **ADHD**-symtomen såsom ouppmärksamhet

och hyperaktivitet minskat vid användningen av **bolltäcke**. ...

[Citeret af 1](#)[Relaterede artikler](#)[Alle 2 versioner](#)[CiterGem](#)[Mere](#)

3. Förändringar av vardagliga aktiviteter och sömn hos personer med **ADHD** efter användande av kedjetäcke

[M Joensen, J Larsson - 2015 - lup.lub.lu.se](#)

... Förändringar av vardagliga aktiviteter och sömn hos personer med **ADHD** efter användande av kedjetäcke ... april 2015 Förändringar av vardagliga aktiviteter och sömn hos personer med **ADHD** efter användande av kedjetäcke Johanna Larsson och Maria Joensen ...

[Relaterede artikler](#)[Alle 2 versioner](#)[CiterGem](#)

4. **Förändringar av vardagliga aktiviteter och sömn hos personer med ADHD efter användande av kedjetäcke**

Joensen, Maria [LU](#) and Larsson, Johanna [LU](#) (2015)ATPK55 20151

[Occupational Therapy and Occupational Science](#)

Otseeker

Weighted Blankets and Sleep in Autistic Children—A Randomized Controlled Trial

P. Gringras, D. Green, B. Wright, C. Rush, S. Masako, K. Pratt, V. Allgar, N. Hooke, D. Moore, Z. Zaiwalla and L. Wiggs

Pediatrics.. 2014; 134(2): 298-306.

This article has not been rated.