

## Masterarbeit der University of Southern Denmark (SDU)

Im Jahr 2006 haben die Däninnen Birgitte Søe Jensen, Ergotherapeutin, und Pernille Worm Pasquali, Physiotherapeutin, ihre Master-Abschlussarbeit an der University of Southern Denmark (SDU) vorgelegt. Das Thema: „Interventionelle Studie über die Wirkung des Einsatzes einer Kugeldecke bei 2-12jährigen Kindern mit Störungen im Bereich sensorischer Integration anhand von Berichten ihrer Eltern“. 37 Kinder, alle mit SI-Störungen, wurden in dieser Studie betrachtet. Die Studie war in Form eines Fragebogens mit 22 Fragen aufgebaut, unterteilt in 6 Abschnitte mit unterschiedlichen Schwerpunkten (z. B. Schlafstörungen, Konzentrations- und Aufmerksamkeitsprobleme, Überreaktion von sensorischen Systemen). Das Ergebnis belegt, dass allgemein in 64 % der Fälle ein hoher Effekt bei Schlafstörungen festzustellen ist. Auch in der Gruppe von Kindern mit Schlafproblemen profitieren 2/3 vom Einsatz der Kugeldecke. Unter anderem profitieren z. B. die Hälfte der Kinder mit Spätfolgen durch Frühgeburt vom Einsatz der Kugeldecke, ebenso wie fast 40 % der Kinder mit Cerebralparese und psychomotorischen Störungen.

Weitere Informationen erhalten Sie unter:

**[www.etf.dk/fagdatabase](http://www.etf.dk/fagdatabase), geben Sie dort „kugledyne“ im Feld „søgeord“ ein.**

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### English Abstract

#### Study of Ball Blanket at the University of Southern Denmark (August 2006).

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An interventional study of effect from use of ball blankets by 2-12 year old children with disturbances in the area of sensory integration calculated on reports from their parents.

**Originaltitel:** Interventionsundersøgelse af effekt ved brug af kugledyner hos 2-12 årige børn med SI-problemer

The aim of this study is to assess if ball blankets effect disturbances in sleeping, concentration and attention, plus affect agitation, spirits and over-reacting sensory systems among children having disturbances of sensory integration. The objective is to contribute in establishing a more qualitative foundation for granting ball blankets from the assistive technology departments in the municipalities.

**Theory** The theories of sensory integration by Ayres and Bundy et Miller are used for elaborating the questionnaires of the study and for expounding the findings. These theories are rooted in following assumptions: The central nervous system is plastic, sensory integration is developed as the foundation for more complex behaviour, the brain works as an integrated unified whole, patterns of interaction determines adaptation of sensory integration and of human beings having an internal drive for developing sensory integration through sensorymotor activities.

#### Study design

The research is a quantitative, non-controlled and non-randomized prospective intervention study, where a group of children having SI-disturbances were followed for three months. A questionnaire was used for data collection. It had 22 questions distributed in 6 sections of focus.

#### Study population

The study included 37 children from 2-12 years old, living in Storstrøms Amt. From their G.P they were referred to the out patient consultation for children at Storstrømmens Sygehus Nykøbing Falster, DK.

#### Findings

In general the ball blanket has most effect on sleeping disturbances (64 %). Around 40 % of the children experience effect on spirits and over-reacting sensory systems. Around a third of the children have effect on concentration and agitation whereas only one fifth of the children have effect on attention disturbances.

#### Conclusion

It is highlighted and described for each group of focus the disturbances, which show the highest effect. Effect above 35 % is chosen as a sufficient effect. The highest effect is seen in the group of sleeping problems, as 2/3 of the children, who have sleeping difficulties also have effect of using the ball blanket. In the rest of the groups for focus an effect is achieved between 1/5 and 2/5 among the children who have disturbances. The study shows that about half of the children having late prematurely sequelae have effect of using the ball blanket and almost 40 % of children with C P and psychomotor diagnoses have effect. Almost 30 % of children having activity disturbances and psychomotor retardation also have effect of the ball blanket.