

GIFTED ADULTS AND THEIR SLEEP – A SMALL SURVEY

Arnolda P. Nauta^a, Maud B.G.M van Thiel^a, Hermanna E.J. Moerman^b, Marcel Smits^c

a Gifted and Talented Adults Foundation (IHBV), Ede, The Netherlands

b Mamo Teksteffect, Zeewolde, the Netherlands

c Sleep clinic, Hospital De Gelderse Vallei, Ede, The Netherlands

INTRODUCTION

Gifted and talented people differ from people with an average intelligence in several ways: mentally (cognitive, emotional) and probably also physical. The definition of giftedness we use is as follows:

A gifted person is a quick and clever thinker, able to deal with complex matters. Autonomous, curious and passionate. A sensitive and emotionally rich individual, living intensely. He or she enjoys being creative¹.

Perkins² states that giftedness can be seen as having a neural system with special properties (with regard to efficiency and precision) in which the nerves transport information in a faster and more effective way compared to people who are less intelligent.

In literature on giftedness we often read that gifted and talented people (children and adults) have problems in sleeping^{3,4}. The arguments that are given are that gifted people do a lot of thinking, leading to worrying, they are 'too much in their head'. Another argument is that gifted people (also children) may need less sleep than average. A well known example is Sir Winston Churchill who only slept a few hours at night⁵. When parents do not know that gifted people may need less sleep, they may think their child is a bad sleeper.

Literature on sleep quality in gifted people is very scarce and the studies are not always methodologically sound. A psychological study in children aged 7 – 11 yr. showed a reverse correlation between IQ and sleep duration⁶. In a longitudinal study of 70 gifted children Freeman compared gifted children with two control groups of children from the same school class. One control group was equally intelligent, but not labelled as gifted, the second control was taken at random. Children with IQs over 140 were neither found to sleep less nor more fitfully. (Questions were answered by the parents.) At all levels of ability the length of a child's sleep was found to be directly related to both age and emotional problems⁷.

In order to get an impression whether gifted people differ from people with average intelligence in their sleep quality we performed a survey among a group of gifted adults asking for sleep quality, the amount of hours of sleep needed, the kind of sleep disorder and reasons for the sleep disorder. We used data from published studies to compare with average people with average intelligence.

METHODS

We asked users of a LinkedIn group, where about 400 gifted people discuss topics about giftedness in daily life, to fill out a questionnaire that was made on a free site on the internet where surveys up to n=100 can be conducted. We also asked for gender and age. The questions were:

1. How do you rate the quality of your sleep: good/moderate/ bad?
2. How many hours of sleep do you need on average at night?

3. Do you think you have a sleeping disorder, yes or no? If yes, what kind of sleeping disorder do you have? (sleep onset insomnia, sleep maintenance insomnia, other; combinations were allowed.)
4. What do you see as reasons for you sleeping disorder?

The survey was open for about 3 weeks in January/February 2011. By that time 46 people had responded: 34 female (73,9%) and 12 male (26,1%). The average age was 45,5 year (female 44,4, male 48,6) with a range of 28 to 63 year.

The data were analysed using SPSS version 15.0 using independent sample t-test, 2-tailed testing. Significance was set at $P < 0.05$

RESULTS

The results on the first four questions are given in the tables 1-4.

Table 1. Quality of sleep in general.

<i>Quality of sleep</i>	<i>n</i>	<i>%</i>	<i>Female</i>	<i>Male</i>
Bad	4	8,7%	3	1
Moderate	18	39,1%	16	2
Good	24	52,2%	15	9
Total	46	100%	34	12

Table 2. Hours of sleep respondents need ($n = 45$) by gender.

<i>Gender</i>	<i>All</i>	<i>Female</i>	<i>Male</i>
Needed average hours of sleep (range)	7,2 (2,5 – 10)	7,5 (4 – 10)	6,6 (2,5 – 9)*

* Difference female – male is significant: $p = 0,04$.

Table 3. Sleep disorder in relation to quality of sleep.

<i>Sleep disorder?</i>	<i>n (%)</i>	<i>Bad sleeper</i>	<i>Moderate sleeper</i>	<i>Good sleeper</i>	<i>Female</i>	<i>Male</i>
Yes	19 (41,3%)	4 (8,7%)	12 (26,1%)	3 (6,5%)	16	3
No	27 (58,7%)	0 (0,0%)	6 (13,0%)	21 (45,6%)	18	9
Total	46 (100%)	4 (8,7%)	18 (39,1%)	24 (52,2%)	34	12

Table 4. Sleep disorders in 29 gifted persons.

<i>Sleep disorder</i>	<i>n</i>	<i>Female</i>	<i>Male</i>
Merely sleep onset insomnia	11	9	2
Merely sleep maintenance insomnia	7	6	1
Other	3	3	-
Both sleep onset and sleep maintenance insomnia	3	2	1
Both sleep maintenance insomnia and other	3	2	1
Both sleep onset insomnia, sleep maintenance insomnia and other	2	1	1
	29 [†]	23	6

[†] The 29 respondents consisted of 4 bad sleepers, 15 moderate sleepers and 10 good sleepers.

Sleep quality of 47,8 % of the gifted people was rated moderate to bad (table 1). Average hours of sleep (table 2) was higher in females than in males ($p=0,04$). Four out of 19 respondents with a sleep disorder (21% of this subgroup) rated their sleep quality as bad (table 3). Merely sleep onset insomnia was mentioned by 19 and merely sleep maintenance insomnia by 12 respondents (table 4).

As reasons for the sleep disorders were mentioned (a) not being able to stop thinking (including having ideas): 16 respondents, (b) medical/somatic reasons (apnoea, depression, pain in legs, PTSS, cold feet, light sleep): 10 respondents and (c) other factors (light, noise), irregular life style, dreams, nightmares: 8 respondents.

DISCUSSION

This first survey measuring sleep quality in gifted people showed that about 40% of this group had sleep problems. This is more than expected, as we found that self reported sleep problems occur in about 30% of the general population (in which about 2% is considered to be gifted)⁸. It might be possible that from the gifted people we asked to participate in our study those with sleep problems were more inclined to fill out the questionnaire which in turn might explain the higher percentage of sleep complaints observed as compared to the average population. Therefore we need to repeat the survey in a group of gifted while minimizing the possibility of selection bias.

Sleep onset insomnia was reported as being the major sleep problem. However also sleep maintenance insomnia was reported frequently.

Chronic sleep onset insomnia is associated with the delayed sleep phase syndrome⁹. This circadian rhythm disorder, characterized by late endogenous dim light melatonin onset (DLMO) occurs in 30% of children with ADHD¹⁰. Giftedness may overlap ADHD as giftedness shares high activity level, boredom, not following rules⁴ with ADHD. Possibly a subgroup of gifted people with sleep onset insomnia has a similar circadian rhythm pattern as people with ADHD. This hypothesis can be tested by measuring DLMO.

Our finding on male female differences supports another study on self reported sleeping quality, where sleeping problems are reported by women twice as much as by men¹¹. Suggested origins for this difference are that women do worry more on work and family and that they are facing problems with hormonal functioning, but to confirm these hypotheses more studies in this area have to be conducted. We cannot compare our findings with other studies as we did not find studies to compare. The study by Geiger et al⁶ who found that children with higher IQs need less sleep, may be an indication of the required amount of sleep by the gifted. However, in this study only 2% of the participants were gifted children. Freeman's study⁷ showed no correlation between intelligence and sleep disturbances. However the results could have been biased by questioning the parents rather than the children.

Gifted people are extraordinary for instance by their very sensitive way of perceiving and their very fast associations. This can lead to overstimulation. Their nervous system may be different from others which could have implications in sleep quality. Studies have to be done to support or reject this hypothesis.

Based on the high prevalence of sleep disorders found in the present study, we are now assessing sleep quality, circadian rhythmicity and co-morbidity in gifted people with sleep problems. Gifted people with sleeping disorders can be referred to the sleep centre of the Gelderse Vallei Hospital in Ede by sending the selftest sleepdisturbances at www.slaapstoornissen.nl to the sleep centre, mentioning 'hoogbegaafden slaaponderzoek'.

Many questions that gifted asked themselves on this topic are still unanswered, for instance about the influence of dreams, food and the biological blueprint.

The importance of more information on this theme is evident. A well rested mind in a rested body can mean a lot for society. A rested gifted person could offer even more. Further study is justified.

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