THE INSTITUTE FOR MEDICAL YOGA

YOGA & MEDITATION AS A ROUTE TO RELAXATION AND BETTER SLEEP

A SURVEY OF THE MEASURABLE BENEFITS OF REGULAR YOGA EXERCISE
FOR INDIVIDUALS WITH CHRONIC SLEEP DISORDERS

A STUDY BY IMY

IN COOPERATION WITH

S K A I S - SÖDERTÄLJE KOMMUNANSTÄLLDAS IDROTTSSÄLLSKAP (SÖDERTÄLJE LOCAL GOVERNMENT EMPLOYEES' SPORTS CLUB)

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THE FINDINGS

Over the eight week course of this investigation, the participants were asked a number of questions in order to determine if and in which case how, their sleep patterns had changed in connection with doing yoga.

They were asked three different questions concerning hours, minutes and number of times they got up in the night. I.e. the participants were asked to record and estimate various factors related to their sleep patterns.

. How long did it take me to fall asleep last night?
. How many times did I wake up in the night?
. How many hours sleep did I get last night?

The participants were also asked three other questions related to different aspects of their own perceptions of the quality of their sleep. Hours, minutes and number of times they got up can be counted and measured. Here, the questions concern more subjective assessments. What the study did here, was to try to see patterns in the group as a whole during the entire survey period rather than staring blindly at the odd individual night here and there.

. Did I feel I got a good or a bad night's sleep?
. How did I feel this morning?
. Do I think I am sleeping better?

The weeks –2 and –1 were the control period in which the participants recorded their sleep patterns without doing yoga and meditation exercises. Weeks 1-6 were the actual time they did the exercises.

QUESTION 1:

- How long did it take me to fall asleep last night?

Everyone was given a sleep diary with five different possible answers to choose from.

a) Less than 15 minutes
b) 15 – 30 minutes
c) 30 – 45 minutes
d) 45 – 60 minutes
e) More than than 60 minutes

The week before they started the yoga exercises (week –1) 18.82% said it took them less than 15 minutes to go to sleep. After six weeks of yoga, this figure had increased to 35.71% - twice as many. In other words, yoga was helping them get to sleep.

In week –1, 42.35% of the participants in the group said it took them 15-30 mins to go to sleep. By week 6 this figure had fallen to 38.57%. In week –1, 12.94% said it took them 30-45 mins to get to sleep. In week 6 this figure was down to 10%. 
In week –1, it took 10.59% of the participants 45-60 mins to fall asleep. At its lowest (week 2), this was down to 7.32%. In week 6, the percentage had reached 8.57% – a 19.07% drop.

In week –1, 15.30% said it took them over 60 mins to get to sleep. By week 6 this figure had halved to 7.15%. In week 3, this figure was as low as 3.66%.

**SUMMARY**

The time it took to get to sleep clearly fell in weeks 1-6. The participants went to sleep more quickly when they did yoga and meditation exercises compared with the two weeks that preceded the study (weeks –1 and –2).

**QUESTION 2:**
- How many times did I wake up in the night?

There were five different possible answers to choose from:

a) Not at all
b) Once
c) 2-3 times
d) 4-5 times
e) More than than 5 times

In the week before the yoga exercises began (week –1) 17.65% slept through the night without waking up. In week 6 this figure had increased to 42.86%.

One group that also showed a slight increase, were the participants that woke once a night on average (group b). This was because groups c, d and e started waking up far fewer times instead.

In week –1, 43.53% woke 2-3 times a night. In week 6, this group had shrunk to 14.29%

The group that woke up 4-5 times a night shrank from 9.41% to 4.28%. The 2.35% who said that they woke up more than 5 times per night had gone down to waking zero times in the week 6 survey.

**SUMMARY**

There was a marked reduction in the number of times people woke up in the night in weeks 1-6. The participants woke up fewer times each night when they did yoga & meditation exercises compared with the control weeks (–1 and –2).

**QUESTION 3:**
- How many hours sleep did I get last night?

There were four different answers to choose from:

a) Less than 4 hours
b) 4-6 hours
c) 6-8 hours
e) Over 8 hours

In the week before the yoga exercises began (week –1), 4.70% of the participants said that they slept for less than 4 hours. This figure remained relatively constant during the entire survey period. In week 6 the figure was 4.28%.

In week –1, 52.94% of the participants said that they slept 4-6 hours a night. By week 6 this group had more than halved in size to 24.29%.
31.77% slept 6-8 hours a night in week –1. This peaked in week 5 at 60.29%. This figure was 57.14% in week 6 – an increase of 80% since week -1. A high proportion of the b group had increased their hours of sleep by 2 hours a night on average. The group that said they slept 8 or more hours a night grew from 10.59% to 14.29% during the survey period.

SUMMARY

There was a marked increase in the number of hours sleep in the group in weeks 1-6 compared with the two weeks before they began the yoga.

QUESTION 4:
- Did I feel I got a good or a bad night’s sleep? There were three different answers to choose from:
  a) Excellent/ good
  b) OK
  c) Poor/ dreadful

In the week before they began the yoga (week –1), 5.88% felt their sleep had been excellent or good. In week 6, 51.43% said the same thing.

In week –1, 72.94% felt their sleep had been OK, i.e. neither excellent/good nor poor/dreadful. In week 6 this figure had fallen to 41.43%.

In week –1, 21.18% felt they had slept dreadfully/poorly. By week 6, this group had shrunk to 7.14% - two thirds of this group had started to sleep better during the survey period.

SUMMARY

The surveys show that the participants in the project felt that the yoga & meditation exercises were helping them to sleep better. There was a ten-fold increase in the number of participants who felt they were sleeping well (a) in principle during the survey period while both the other groups (b and c) clearly shrunk in number.

QUESTION 5:
- How did I feel this morning? There were three different answers to choose from:
  a) Excellent/ good
  b) OK
  c) Poor/ dreadful

In the week before the yoga exercises began (week –1), 5.88% of the participants said that they felt excellent or good when they woke up in the morning. In week 6, 51.43% felt the same. Just as in question 4, this was a ten fold increase during the survey period.

In week –1, 29.41% said they felt OK in the morning. By week 6 this group had grown to 38.53%.

In week –1, 64.71% had answered poor/dreadful. By week 6, just one in ten (10%) felt this way in the morning.

SUMMARY
The participants clearly felt better in the morning after they had started yoga & meditation exercises compared with the two previous weeks.

QUESTION 6:
- Has my sleep improved?
There were two possible answers to choose from:
a) Yes
b) No

In the week before the yoga programme began (week –1), one in 10 (10.59%) felt that their sleep had improved during the week. This figure steadily changed during the survey period and by week 6 had reached 77.14%.

In week –1, nine in 10 (89.41%) said that their sleep had not improved. This figure also steadily changed and by the end of week 6 had fallen to 22.86%.

SUMMARY

Almost eight in ten participants felt that their sleep had got better during the six weeks they had been doing yoga & meditation compared with the two weeks before.

YOGA INTENSITY

How much yoga do you need to do to achieve such clear results?

The instructions to the participants were to do 30-minute sessions three to five times a week, and when they go to bed, to listen to the guided deep meditation tape of around 25 minutes five to six times a week.

The actual amount of yoga each participant ticked in their sleep diaries and recorded week by week was slightly less than that prescribed by the end.

YOGA SESSIONS: The participants did the exercises between two and three (2.83) times per week for six weeks.

MEDITATION: When it came to passively listen to the guided mediation on the B side of the tape when they went to bed, the participants did this on average four to five (4.58) times a week over the six weeks.

SUMMARY
On average, the participants did a 30-minute yoga session 2-3 (2.83) times a week and passively listened to relaxing deep mediation for around 25 minutes 4-5 (4.58) times a week for six weeks.

COMMENTS BY THE PARTICIPANTS

Graphs and statistics are useful but at the end of the day, it is the person that matters. How do the participants feel about what they were doing? What is it like to practise yoga? Does it work? Are they sleeping better? Are they feeling better?

The comments below that come from the sleep diaries and summaries provide a good summary of the most important findings of the Södertälje project:

The exercises worked. Simple yoga exercises help people to feel better, function better – and sleep better.

“Thank you! I am brighter, happier and more satisfied with life now I am sleeping so well. No longer running to the bathroom 3-4 times a night. No longer staying awake “tackling” the problems of the day.”
Anita Lehtonen, Municipality of Södertälje.

“I would like to summarise my experiences as follows: The yoga exercises helped me sleep more soundly and gave me a feeling of being fully rested. One downside I did experience was that I regularly woke up early (05.00-07.00), which I attribute to deeper sleep. I feel that yoga gives you a general sense of physical and psychological well-being.”
Stefan Jonsson, Municipality of Södertälje.

“I am now sleeping well and feel really great.”
Anja Kollander-Räsänen, Municipality of Södertälje.

“Fantastic being able to sleep till six am. Fantastic feeling to get to sleep so quickly.”
Kerstin Lindqvist, Municipality of Södertälje.

“Over the past 25 years I have almost never slept more than 2-3 hours a night. I always get up at least 3 times a night. But I now feel I am sleeping better with the yoga. I have slept all through the night several times! It feels good. I am quite clearly sleeping much better. Thank you for everything.”
Jane Berulf, Municipality of Södertälje.

“I have really slept much better. Fantastically well. Thank you for all the help with sleeping. I want to learn more yoga.”
Margita Jonsson, Municipality of Södertälje.

“I sleep better than before. Almost like in the old days when I was a child. My sleep is calmer and more relaxed. Thank you for the tape. It worked well.”
Siri Karlsson, Municipality of Södertälje.

“I noticed a difference after just two weeks. I found it much easier to go to sleep. 15-30 minutes (compared with several hours before) and I often slept the whole night through.”
Angela Johansson, Municipality of Södertälje.

“It is hard to fully concentrate on the exercises. My self discipline was probably a bit poor, but I appreciate the stuff I was given and know that I now know how to take up the yoga exercises for sleep again whenever I feel like it.”

Christina Knip, Municipality of Södertälje.