The Effectiveness of Cognitive Behavioral Therapy (CBT) in Improving Primary Insomnia

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A B S T R A C T

The purpose of this study was to investigate the effect of CBT in improving primary insomnia, respectively. To test the hypothesis, a causal comparative design of the pretest–posttest was used. 40 patients with primary insomnia, referring to psychological and psychiatric clinics, diagnosed with psychological insomnia (excluding non-psychological factors), and age range 25 to 50 years (20 males and 20 females) were selected by purposive sampling. CBT training package is the research tool. In order to classify and analyze the data covariance t-test was used. Based on the data analysis, the pretest and posttest in CBT experimental group, there was a significant difference that shows the efficacy of CBT in improvement for insomnia. And the difference between CBT group and the evidence group in reducing primary insomnia is substantial and statistically significant. Given the effectiveness of the procedure, recommended in the treatment of primary insomnia are considered and different types of insomnia and other sleep disorders that are desired.

INTRODUCTION

Given the prevalence of insomnia in different societies and people and detrimental effects that lack of sleep has on the life process, health and various diseases we sought to examine the efficacy of CBT for the treatment of primary insomnia which have psychological basis more. Several studies have been noted the harmful effects of insomnia, including a study published in the Journal of the National Academy of Sciences. This study pointed out the direct correlation between increased Alzheimer and lack of sleep. Because of lack of sufficient sleep the brain stops producing new cells. In fact, lack of sleep affects the hippocampus which is responsible for memory formation [5]. On the other hand, numerous studies have shown that lack of sleep leads to gain weight In fact, Reuter’s reports from Washington website hormones associated with appetite and sleep deprivation can alter feeding behavior. So far, the idea that insomnia is a symptom rather than the cause, so strong that no one had questioned it. Robert Stiegler who is sleep researcher at Harvard University, says it is too easy to say about a patient that he is depressed or schizophrenic and do not sleep well, But we do not ask ourselves that maybe this association is contrary to our imagination. In a study that Matt Walker, from the University of California and his colleagues has done, they showed the images of faces of different people in different emotional states such as fear; anger; sadness and joy arise, and asked them to give to the excitement of this privilege. The participants in terms of insomnia than angry and fearful faces were more sensitive. After sleeping, their emotional reaction to the figures was milder. And were more acceptable to happy face, Walker concluded that sleep can exacerbate emotional reactions [7]. Much evidence suggests that lack of sleep can manic episodes in patients with bipolar disorder prompt. Another group of studies have shown that sleep helps the brain process memories. Numerous research evidences compared with those who had normal sleep and sleep loss results achieved, For example, in patients with insomnia, such as high blood pressure, higher levels of depression, anxiety, and higher scores on measures of sleep latency longer arousal, metabolism seen in 24 hours. Research on the effectiveness of cognitive behavior therapy to treat primary insomnia. Several studies have pointed to the efficacy of CBT for
chronic insomnia, including research Ednger comparing no pharmacologic therapy cognitive behavioral therapy, and placebo for chronic primary insomnia has been a decrease of 54 percent compared to placebo in sleep the first night, which shows a decrease of 16 percent. Consequently, the proposed research has shown that cognitive behavioral therapy was more effective than placebo. With CBT a person will be close to normal sleep to where the average is over 6 hours of sleep. CBT provides clear structure and focus for treatment. Unlike treatments that seem absolutely fascinating, CBT focuses on the subject. More people who use CBT treatment need to make changes in their lives behind. CBT seeks an understanding of what needs to change. And what should not, after a change in the direction of the intended action.

Methods:

Pretest and posttest control group was composed of two groups.

\[ RT_1 \times T_2 \]

\[ RC \rightarrow -T_2 \]

Researcher is interested in examining the cognitive behavior therapy for lack of primary insomnia. The research question is that how much the cognitive behavioral therapy can be effective in improvement and reduction of primary insomnia? To answer the question, at first 40 people who suffer from psychological primary insomnia were randomly selected, and were replaced into two groups. 1. A test of cognitive behavior therapy was applied on them. 2. The control group received no treatment for them. The initial investigation consists of all those who suffer from insomnia. In the preliminary interview examples that had lack of sleep because of physiology and medical reasons have been removed.

The content of the sessions:

Session 1) 23.5.2012 (The meeting discussed the following issues. The population included 20 patients examined by two psychologists (recorded history) were analyzed according to sex. 1. The individual history of each sample individual 2-explanation about the treatment plan 3-demographic information (age - education - experience insomnia) for each sample individual

Session 2) 25.03.2012 (This session explores how to record data related to sleep time during 10 consecutive nights, before the implementation of the independent variable recording was carried out by 10 pm, for example, every time during 10 nights sleeping in your notes and then obtain the average number obtained, provide the researcher.

Session 3) 7.6.2012 (References in this session include thoughts, emotions, life situations, type of feed fed daily functioning dysfunctional thoughts that can cause insomnia are all kind of deal.

Session 4) 11.6.2012) the meeting made recommendations toward improving insomnia conducted by a psychologist. These include sports afternoon, relaxation of muscles during sleep, daily planning, reading before bed bad habits like watching TV before working on sleeping, working with computers, exercise before bed, drinking tea liquid is high, leading to fragmented sleep advice to consume more foods containing substances like serotonin and cooling a room that can improve the quality of their sleep.

Sample of study:

Sample of study included 40 patients of both sexes (20 men and 20 women) who were selected by purposive sampling. Subjects, ages 25 to 50 years and all were suffering from chronic insomnia. The range of graduation was from diploma to postgraduate. In this study, the subjects were asked to record when they go to sleep at during 10 nights (Baseline), the mean time to fall asleep this time they were seen. Then the independent variable (implementation of cognitive behavior therapy) within 3 months, weekly sessions, and the experimental group were exposed. The control group was the same, the only difference was that the controls were not applied any treatment After 3 months; the average duration of sleep was recorded during 10 consecutive nights. Data included in the test group 1. The mean time of onset of cognitive behavioral sleep 2. Average time to sleep after 3 months of cognitive behavioral therapy CBT group (post-test) 3. Average time to sleep after 3 months in the control group (no treatment). The data obtained by independent student t-test and ANCOVA were compared. 1. The two groups were compared after 2 tests comparing pre- test and post-test group. CBT includes a 1- step process personal history, treatment plan, demographic characteristics (age, educational level, and history of insomnia)

2. Training records of 10 consecutive nights of recording time asleep during out of 10 nights.

3. Analysis of performance (how thoughts, feelings and situations, feeding and daily performance, can cause insomnia)

4. Focus on behaviors, learning, practice new skills that can improve insomnia (Exercise afternoon, practicing relaxation of muscles during sleep every night planned for tomorrow, tired eyes during sleep with abnormal patterns of behavior and habits of study and attention to mistakes, such as watching TV, computer, sports, tea and plenty of fluids before of sleep, bad habits such as eating less food, contain serotonin, overheating bedrooms and dysfunctional thoughts and bad check that prevents a person is asleep.)
In order to classify the data and SPSS software to analyze data on two independent samples t-test was used as a covariate.

**Tools:**
1. A sheet containing facts CBT training for attention and repeat therapy at home for the group treated with CBT, the second session of the individuals under study.
2. SPSS software tool for data classification.

**Results:**
The data analysis results show that, compared with pre-test and post-test is quite significant differences in the implementation of CBT. I.e. before and after the implementation of the independent variable (CBT) insomnia has been changed significantly of. (99% confidence) 99% = P

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Middle</th>
<th>Mode</th>
<th>Standard deviation</th>
<th>Elongation</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre test</td>
<td>0.42</td>
<td>0.5</td>
<td>0.85</td>
<td>0.35</td>
<td>0.992</td>
<td>0.377</td>
<td>0.75</td>
</tr>
<tr>
<td>Post test</td>
<td>0.95</td>
<td>1</td>
<td>1</td>
<td>0.626</td>
<td>0.754</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

After the pre-test and post-test comparison of the CBT group with 99% confidence the difference was statistically significant. This finding suggests a significant change in pretest and posttest experimental group was due to the implementation of the independent variable.

<table>
<thead>
<tr>
<th>Sig</th>
<th>F</th>
<th>Sig</th>
<th>df</th>
<th>Mean</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.001</td>
<td>2.91</td>
<td>0.001</td>
<td>3.022</td>
<td>38</td>
<td>Pre test</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.42</td>
<td>Post test</td>
</tr>
</tbody>
</table>

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<tr>
<th>Group</th>
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<th>Standard deviation</th>
<th>Elongation</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive behavioral</td>
<td>0.95</td>
<td>1</td>
<td>1</td>
<td>0.626</td>
<td>0.754</td>
<td>0.743</td>
<td>0.450</td>
</tr>
<tr>
<td>Control</td>
<td>0.450</td>
<td>0.5</td>
<td>0.5</td>
<td>0.394</td>
<td>-1.308</td>
<td>0.186</td>
<td>0.450</td>
</tr>
</tbody>
</table>

As can be seen, the average amount of sleep the first night of group cognitive - behavioral (0.95) and standard deviation (0.626) and the average amount of sleep the first night of the control group (0.450) and standard deviations (0.394), respectively.

As can be seen in Table 4, the F max (2.51), According to Sig (0.015) is larger. Therefore, the equal variance assumptions were met. With respect to the calculated value of t (3.022) and the Sig (0.004) the null hypothesis is rejected. Considering the significance of difference between two means with 95% confidence that the true highlight. So the first night of insomnia among subjects in Group Cognitive - Behavioral and there is a significant difference between the control groups.

Tools: training package of CBT. This package contains the key elements of CBT and therapeutic techniques, including stimulus control, paradoxical intention disappointment, relief of muscle control, cognition, sleep restriction, being passively awake, sleep hygiene, sleep, and memory writing. This package is provided from the Mayo Clinic SE in Minnesota.

**Conclusion and Discussion:**
Many people have trouble sleeping, Sleep Research Society’s chief doctor Farhadi shows 49% of people are dissatisfied with their sleep. And at least five nights of each month they have this problem and the research that has been done in America, 10 to 40 percent of American adults have intermittent insomnia And 10 to 15 percent of long-term insomnia, insomnia associated with decreased job performance and increased accidents and hospitalization rates. Hence we investigate the treatment of sleep disorders; primary insomnia is that we paid attention to.

In this study the effectiveness of cognitive behavior therapy on primary insomnia has been examined. According to Table 1 and 2 run independent variable (CBT) is effective in improving the primary insomnia is statistically significant. Table 3 and 4 also emphasize that the between the control and experimental groups after 3 months of CBT treatment experimental and control group there is a statistically significant difference.
Edinger’s study compared the treatment with placebo and cognitive behavioral therapy for primary insomnia. Is similar to the results found in this study to reduce 54 percent of the first night’s sleep compared to placebo indicate that 16 per cent that HIGHLIGHTS overall effectiveness of cognitive behavioral therapy compared to placebo. Edinger came to the conclusion that the implementation of CBT treatment makes it easy to get to sleep and similarly, in their study with this method, an average of 6 hours of sleep per day was reached.

The second edition of the International Classification of Sleep Disorders (ICSD) causes insomnia is divided into eleven categories we only tried to canvass the insomnia caused by psychological issues. However, other non-conformist insomnia such as insomnia, paradoxical insomnia, insomnia associated with physical abnormalities, etc., can all interfere with insomnia is psychological. Therefore, it is necessary to examine the causes and effects of insomnia are considered intermediate. This is one of the major limitations of this research. From other limitations include the variables in the research on effective treatment and when the researcher might make mistake, weather the research result from the implementation of the independent variable or variables other modulators, such as changing habits, improving mood, and that factors other than the implementation of cognitive behavior therapy, which needs to be considered.

According to the above issues it is necessary this study be repeated by further control for confounding variables and to increase the sample while samples were homogenized As a result of this research is more likely to be considered.

There are methodological limitations of the study, the most important of which are:
1. The limitation of selection process of subjects
2. The small sample size
3. The control of variables are not completely done. Many variables can lead to a temporary improvement that has nothing to do with CBT.

It is recommended that:
1. By using multiple group plans to focus on comparing the effectiveness of different interventions.
2. By using meta-analytic studies examine the effect of various interventions,
3. The method of treatment to be used in conjunction with other methods so that the effect will be greater.

REFERENCES