Title

The title of the article is “Yoga for improving sleep quality and quality of life for older adult.” The title of the article seemed to be long and the wording “quality and quality” seems to be repetitious for the readers who have not read the article. As a first time reader it is a bit ambiguous if the word quantity was misspelled for quality. However, after reading the article the title does makes a sense since the article discusses the sleep quality as well as other qualities such as the emotional, physical and psychological well being that improves with yoga intervention in the elderly population. Though the research study measures the quantity of sleep, more significance is given to the quality of sleep and life in the elderly which makes the title appropriate for this article. The title implies the hypothesis of the research study. Though the title emphasizes the research to be a qualitative study, the research study was actually conducted in a quantitative approach. From the title the readers can clearly recognize that the independent variable is yoga and the dependent variable is the quality of sleep and life. Overall the title clearly presents the key variable and the population of the study.

Abstract

The abstract of the article is long with well structured sub headings covering the main aspects of the research. The abstract contains the context, objective, design, settings, participants, intervention, outcome measures, results and conclusion. The contents under each subheading were concise and brief. The abstract provides a quick overview and central information of the research. One of the areas which contained unnecessary information was the result section. Instead of mentioning all the qualities such as “... sleep quality; sleep efficiency; sleep latency and duration; self assessed sleep quality; fatigue; general well-being; depression; anxiety; stress; tension; anger; vitality; and function in physical, emotional, and social roles” the whole sentence could have been cut short by just mentioning improvement in quality of sleep and physical, emotional and social well being, which covers all the factors mentioned above.

Introduction

The brief introduction of the authors and their educational qualification relevant to the study enhances the credential of the research study. The introduction clearly gives concept and the variable under study. In the beginning of the introduction, the author gives an estimate on the percentage of the elderly suffering from insomnia and the disastrous effects it causes in the physical, emotional and social well being of the elderly. Though the illness may be treated with western medications, the medications cannot be used for long term and has many side effects which can affect the normal day to day functioning making the western medication less beneficial in treating patients suffering from insomnia. Hence a research is performed to study if yoga can reduce the symptoms of insomnia and increase the quality and functionality in elderly people. Though the hypothesis and the research question were not directly stated in the introduction, all the information mentioned above gives the readers a clear study purpose for the research. A large percentage of the population suffering from insomnia makes a significant need to research and study on the particular subject. The introduction also specifies that such studies have already been performed and the repetitious research to make the results more provable makes this particular research study prospective in nature. A literature review is not present in the introduction. From the references of the article it is clear that the authors have studied many sources for performing this research. The articles were dated from the year 1989 to 2012. While most of the articles were up to date a couple of articles were outdated. The articles were relevant to the research study performed.

Significance for nursing

Insomnia is one of the major issues suffered by patients admitted in any health care organization facility. Insomnia is one of the major factors that contribute to stress for the patients. As a result patients suffer from many physical, psychological and emotion distress due to the lack of sleep. Since the western medications does not have much effects in the treatment of the disease, research studies in alternative methods such as yoga can proved evidence based practice for the nurses to use in the treatment for their patients. More research in this particular study can definitely prove the efficiency and effectiveness of yoga in the treatment of insomnia. The article does not particularly specify the use of intervention by the nurses in the elderly population; however nurses can make use of the article to perform evidence based practice.

Method

The method section clearly demonstrated the guidelines used in the selection of the participants, the interventions used, the experiment protocol, the tools used for the data collection and the outcome measures.

Research Design

The research study was done in quantitative method. This particular research study was performed using quasi experiment design. That is the “study was designed as a non-randomized, waiting-list controlled trial.” The main disadvantage of this research study is that the research study does not prove the benefits of the use of yoga in the treatment of insomnia in a wide range of population. The study would have given better results if it was performed using Randomized controlled trials. This research study implements a pre-posttest design. Data were collected ten days before the intervention and ten days after the intervention. The time dimension in this particular research design is cross sectional. The data were collected once at a fixed point before and after the intervention. A prospective approach was perfect for this particular research study since this method was appropriate to elicit the validity of the intervention. Blinding was not used for the research study. Though the research article did not specifically mention about the masking, reading the article implies that blinding was not used in the study.

The experimental group received the yoga intervention while the control groups were waitlisted. After the interventions the comparison between the groups was effective in revealing the key relationships. The confounding variables were well established in the research study. The confounding variables are the age, physical, psychological, social factors, sleep quality, sleep duration, etc. Homogeneity was maintained in the study. Since homogeneity was maintained in the research study it limited the generalizability of the study. The external validity is compromised in this research study the study did not include participant from various population, settings and condition. There were least threats to the internal validity by the use of logs to keep track of the changes during the yoga intervention. The researches tried to reduce the bias in the study by controlling the subjects not to engage in similar activities or start using sleep medication while in the study; however participants who already were in the sleep medications were allowed to continue using the medications.

Population and Sample

The population were clearly identified and described in the article. The inclusion criteria were men and women over the age of 60 who complained of insomnia as described in the diagnostic and statistical manual of mental disorder, who were willing to give the informed consent and comply with all the study’s protocol and procedure. The excluding criteria for this research study are participants who suffered with insomnia due to medical and psychological condition that causes the illness and were substance abuser. The target populations are elderly living in the western society who can benefit from yoga to treat insomnia. The accessible populations were the elderly suffering from insomnia in Jerusalem, Israel. The differences in the characteristic of the population may lead to bias and jeopardize the reliability of the study. The usage of power analysis in the selection of the sample was not mentioned in the article. The sample size seemed to be small to support the statistical conclusion validity. The sampling method used for this particular research was non probability consecutive sampling. Out of 458 candidates who responded to the advertising campaign 74 suitable candidate were admitted for the study. Out of the seventy four selected the first 31 patients were assigned to the control group and the following 43 were assigned to the experimental group. In addition the sample size is small and monotonous which requires further research in the study to prove the intervention is successful in treating insomnia.

Data Collection and Measurement

The information obtained from the participants is highly reliable since different kind of tools was used to obtain detailed information from the participants. The data were collected through self report. The triangulations of methods were used appropriately since multiple methods were used for data collection which made the research study effective. Researchers collected the subjective measure through the Pittsburg Sleep Quality Index, the Karolinska Sleepiness Scale, the Epworth Sleepiness Scale and the daily sleep and practice logs. The study also measured the physical, psychological and social well being through the Profile of Mood States short form. The Depression Anxiety Stress Scale long form and a health survey short form 36. Biophysical measures were used to obtain the objective data through portable Embletta X100 sleep monitoring device which measured the SOL, TST, WASO, REM sleep, NREM Sleep, LS, SWS and this helped to reduce the bias in the study. The data collectors were well trained and the researchers used the best data collection method which enhanced the quality of the data. Since the data were collected 10 day before and after the intervention the data will give reliable information on the effectiveness of the study. However a point that should be noted is that the data collection was abundant which may be overwhelming for some of the participants which could have caused erroneous answering of the questionnaire due to the fatigue experienced while filling the self report questionnaire.

Procedures

The procedure of the interventions was clearly stated in the research study. Qualified professionals selected the participant for the study and the classes were conducted by six certified yoga teachers which make the intervention highly reliable. The asana taught during the intervention, for instance the meditation, breathing, relaxation, and the “yoga nidra” particularly dealt with treating insomnia and enhancing the physical and emotional well being. Hence the intervention solely concentrated in the variable being researched. The experimental groups were given the yoga intervention and the control groups were given the intervention after the 12 week control phase, and the variable in both of the group were carefully compared and analyzed and this procedure definitely helped to maintain the fidelity of the study. All the participants in the group received the interventions however in different timing which maintained the justice for all the participants as well as did not create any bias in the research study. The basic ethic of human rights such as informed consent, autonomy, nonmaleficence was taken care throughout the study. Overall the procedure for this particular study was well implemented.

Results

The result of the study was clearly specified in regard to the demographics, dropouts, compliance, safety, sleep quality, quality of life and clinical significance of the result.

Data Analysis

The statistical method used for the research study was a mixed, repeated measure analysis of variance. The ANOVA statistical method of testing will be the appropriate method of find the difference in the variation between the three groups tested. The first comparison was between the yoga intervention group and the wait listed control group. The second comparison was between the high compliance yoga intervention participant and the low compliance yoga intervention participants. The repeated measure analysis of variance was required for this research study to prove the effectiveness of the yoga intervention among the groups. Type I and type II error were avoided by careful observation of the variables and the hypothesis of the study. The statistical Table 1, Table 2, Table 3, Table 4 and Table 5 give clear results of the study and the effectiveness of the intervention. Most of the confounding variables were tested.

Findings

Different variables tested in relationship to the high compliance yoga group, low compliance yoga group and wait list control are mentioned in the finding. The high compliance yoga group had better results compared to the other two groups and the low compliance yoga group had better treatment results compared to the wait listed group. The discussion does mention about the various limitation that were encountered in the study. One of the limitations that were mentioned in the discussion section was the compliance with the intervention provided. The research study stated that only 50% of the experimental groups were able to sustain the level of practice. This particular study did not have a single outcome measure which could have given a perfect answer to the research question. The researchers did conclude that for generalizability of the results testing must be performed using randomized control study for successful results of the intervention. Since the participant in the study was those who responded to the advertisement there are high chances of bias to exist. The study implied that 25 minutes of yoga practice per day for 12 weeks can improve the subjective symptoms of insomnia.  
Summary Assessment

Though there were various limitations and lack of generalizability in the study, the intervention does seem applicable in the treatment of the illness. The evidence can be definitely used in the nursing practice on a community based setting for the treatment of insomnia in the elderly people. Yoga has lesser or no side effects comparing to western medication in the treatment of insomnia since the report mentioned none of the participants were harmed during the intervention. Keeping the ethics of beneficence and nonmaleficence in mind, yoga can be used in some of the clinical setting for the treatment of insomnia. However in order for the intervention to be widely available and provide an evidence based practice further randomized research with large number of participants must be performed.

Halpern, J., PhD., Cohen, M., PhD., Kennedy, G., PhD., Reece, J., PhD., Cahan, C., M.D., & Baharav, A., M.D. (2014). Yoga for improving sleep quality and quality of life for older adults.*Alternative Therapies in Health and Medicine, 20*(3), 37-46. Retrieved from http://search.proquest.com/docview/1552463015?accountid=13158