

Effectiveness of Bensons Relaxation Therapy on Sleep Quality and Mental Health in Elderly Population

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ABSTRACT

Aging related changes are strongly associated with poor sleep quality. Lighter sleep and decrease in sleep efficiency are the common complaints in aging. Poor sleep quality is associated with impaired mental health. This Quasi-Experimental Study included 45 elderly people between the age 60 years to 70 years. They were treated with Benson's Relaxation Therapy (BRT) for 3 months and undergone pre and posttest evaluation with Pittsburgh Sleep Quality Index (PSQI) and Mental Health Battery (MHB). The collected data were assessed with Paired 't' test. The data analysis shown that, with 5% level of Standard error, the P value fall >0.0005 and conclude that, Benson Relaxation Therapy have significant effect in improving sleep quality and mental health in elderly people.

Keywords: Benson's Relaxation Therapy, Pittsburgh Sleep Quality Index, and Mental Health Battery

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1. INTRODUCTION

Aging is a vital process concerned with marked alterations in physiological and psychological aspects of the human being. As aging alters the sleep quality and sleeping efficiency, reduced sleep or altered sleep are being the benchmarks of mental health in older people which is associated with the quality of life ⁽¹⁾.

The world's population is ageing fast. As per the Global Health Estimates stated that, the number of aged over 60 years will be 1.4 billion in 2030 which will be higher than 2020 record which was 1 billion and by 2050, the number will have doubled and reach 2.1 billion. The population above the age of 80 years is approximated to be threefold in 2050 which may reach 0.426 billion ⁽²⁾.

Over 14 out of 100 people crossed 60 years present mental disorders ⁽²⁾. GHE 2019 quantified that, said mental disorders are responsible for 10.6% of disability in DALYs of senior citizens. The anxiety and depression are common cause of suicides and accounts for 27.2% deaths among above 60 years population ⁽²⁾. 36 – 69% of older adult population affected by complaints of Sleep disturbances.

Foot print of poor sleep quality is the major problem occurs in older age group which reduce endurance & QOL and increased chance of cardiovascular disease (CVD) and psychiatric disorders ⁽⁹⁾. This in turn affects sleep quality and behavioral illness ⁽²⁾.

Sleep being the vital physiology in CNS function restoration, memory integration and affects regulation of other systemic function to provide repair and energy

restoration ⁽¹¹⁾. The average sleep length is between 7 and 8.5 hours per day ⁽⁴⁾. Based on the belief sleep can restore energy, reduce stress and anxiety, and makes able and concentrate to perform daily activities ⁽⁴⁾.

Short sleep, frequent wake ups during night, day time sleepiness and wake up at the morning earlier than the usual time are the manifestations of poor sleep quality among older people⁽²⁾. This happens due to aging, nightly worries, primary sleep disorders, chronic stress towards loss of income or financial insecurity, unfavorable situations, physical and mental illness, taking medicines and social – mental factors ⁽²⁾.

Individual’s mental health is the ability to have compassionate relationships, to perform social responsibilities, to handle changes around, and to manage emotions ⁽¹⁰⁾. People above 60 years develop mental disorders due to the higher incidence of various problems among them. ⁽⁵⁾

The reported overall occurrence of mental disorders among older adults range from 1 to 18%. Mental health is affected by collective influence of earlier life experiences, tribulation exposure, and poor functional & significant lack in locomotor abilities. Social detachments and aloneness affect 25% of elderly, to develop mental health conditions. ⁽³⁾

Physicians around world help the elderly to improve sleep quality by administering supplementary drugs to maintain good mental health. The increased spread of poor sleep quality complications and its expression in overall health among senior citizens pointed out a need of implementing an easily available, exact and economically rewarding treatment method to enhance good sleep quality to this vulnerable group ⁽¹⁾.

In practice, various relaxation methods, meditation methods are used to treat sleep disorders. Bensons Relaxation considerably reduces somatic contractions, decreases HR, improves EF; diminish the level of depression and anxiety in CAD, COPDs and Rheumatoid arthritis patients. It clues that, Benson’s muscle relaxation therapy controls parasympathetic sympathetic activity.

The PSQI is the self- Reported method of sleep quality evaluation for the very last month and being sleep quality assessment questionnaire used throughout world ⁽⁶⁾. The questionnaire has been utilized in Clinical

setups, many research works carried out, and in normative samples ^(6,7,8.).

Various Researches have found that older age people demonstrated sleep disturbances which is related to mental health illness. So, there is a need to reduce sleep disturbances among older age groups which may improve mental health.

Here is a study to specifically target the older age people and to find out the effectiveness of Benson Relaxation Therapy on sleep quality and mental health which may be used in sleep disturbances and mental health related treatments and related future research. And this research work aims to find out the effectiveness of BRT on sleep quality and mental health in elderly people.

2. RESEARCH METHODOLOGY

This quasi-experimental study used convenient sampling method to include 45 older people between the age 60 years to 75 years from Sivabakkiam Old age Home (Rehabilitation Centre). Among them, 20 male and 25 were female. This study used the following as INCLUSION CRITERIA: Age between **60 –75** years, Good interpersonal relationship, Affliction to acute physical–mental illness, Subjective mental complaints, suffering from sleep disorder, Absence of emotional disturbances and the EXCLUSION CRITERIA are: Lack of cooperation, Neurological disease (stroke, parkinsonism, dementia), Peripheral vascular disease, Alcohol/drug addiction, Systemic disorders.

After getting voluntary participation consent from the selected samples, the therapist collected pre-test data with ThePittsburghSleepQualityIndex(PSQI) and Mental Health Battery. After pre-test data collection the therapist, taught Benson’s Relaxation Exercises to the participants. The participants are advised to do the exercises daily morning and evening. The therapist also taught the Benson’s Relaxation exercises to a care taker and selected him as a supervisor. And he is asked to monitor the active participation of the participants and record their activities. All the participants were trained for a period of three months.

After 3 months of Benson’s Relaxation training, the participants were assessed for post test evaluation with PSQI and MHB scores. The collected data taken for critical analysis with paired ‘t’ test.

3. DATA ANALYSIS AND RESULTS

Measurement Tool	Mean value	Standard deviation	‘t’ values	significant		
Measurement Tool	Pre- test	Post – test	SD	Table ‘t’ value	calculated ‘t’ value	At95%level ofconfidence
PSQI	18.2	11.76	1.27	1.67	33.96	P<0.05
MHB	100.67	156.27	13.363	1.67	27.911	P<0.05

TABLE: Mean, SD, t value and level of significant in Pittsburgh Sleep Quality Index and Mental Health Battery.

For Pittsburgh Sleep Quality Index mean values are **18.2and 11.76** respectively and the standard deviation (SD) is **1.27**. The determined value **33.96** is larger against the Table ‘t’ value **1.67** and the p value 0.001 is lesser than the 0.05. So, here this study rejected the null hypothesis H01 and accept the alternative hypothesis H11. From the result, the study has proven that Bensons Relaxation Therapy had significant effect on sleep quality.

For Mental Health Battery mean values are **100.67** and **156.27** respectively and the standard deviation (SD) is **13.363**. The determined value is **27.911** is larger against the Table 't' value 1.67 and the p value 0.001 is lesser than the 0.05. So, here this study rejected the null hypothesis H02 and accept the alternative hypothesis H12. From the result, the study has proven that Bensons Relaxation Therapy had significant effect on mental health.

4. DISCUSSION

Elderly population around the world suffers from sleep disturbances due to physiological changes and socioeconomic changes. One out of six older adults is abused by their own carriers⁽³²⁾. Among older people, abuse meant in the form of, any kind of bodily injuries, scolds, disparagements, mental traumas, neglect, sexual and financial abuse. Abuse leads the older adults into serious depression and anxiety consequences⁽³³⁾. Most of the elderly are caregivers of senile spouses with chronic health conditions. These responsibilities can be overwhelming and can affect their mental health⁽³³⁾.

Reduction in their contributions to the society, elderly people gather unfavorable experience like despaired, a downturn, and feeling of purposeless with ill treatment by others; and all together affect mental health seriously⁽³⁴⁾. Most of the older adults tend to spend less time asleep than their young counterparts. Usually older adults have poor sleeping pattern in nights & subsequent daytime functioning and bring others to assume these are normal aging process⁽³⁵⁾.

Soporific supplementation may relieve sleep disorders for the moment and their drug interference results in many side effects. Hence, to avoid drug side effects, consideration of non pharmaceutical approaches is required.

As many researchers carried out their studies to treat sleeping disturbances pharmacological or physical Therapy management's. Among physical Therapy Benson's Relaxation Therapy has greater supporting reviews for relaxation treatments which were carried out in various health diseases⁽³⁶⁾. Study by Sarmadi et.al supports this study results⁽³⁷⁾.

45 participants living in an old age home received Benson's Relaxation Therapy for a three month period under supervision and pre-test and post-test data were collected. The data obtained in the data analysis shows that Benson's Relaxation Exercise has a significant effect on improving sleep quality and mental health among elderly people.

5. CONCLUSION:

Sleep had direct impact on mental health. As older Adults experience sleeping disturbances, the study evaluated for mental health among them and treated them with Bensons Relaxation Therapy. After 6 months of successive Bensons Relaxation Therapy the study concludes that the Bensons relaxation therapy was helpful in treating sleeping disturbances and improving mental health among elderly people in the old Age home.

REFERENCES

- [1]. Seyed Ameneh Motalebi, Fatemeh Mohammadi (2022). The Impact Of Bensons Relaxation Technique On The Quality Of Sleep In The Elderly. Topics In Geriatric Rehabilitation. January 2019.
- [2]. World Population Prospect 2022: Release Note About Major Difference In Total Population Estimates For Mid – 2021 Between 2019 And 2022 Revisions. New York: United Nations Of Economic And Social Affairs, Population Division 2022, Accessed 12 September 2023.
- [3]. Hong Teo R, Hui Cheng W, Jie Cheng L, Lau Y, Tiang Lau S. Global Prevalence Of Social Isolation Among Community-Dwelling Older Adults: A Systemic Review And Meta-Analysis, Arch Gerontol Geriatr . 2023 April; 107: 104904
- [4]. Yon Yy, Mikton CR, Gassoumis ZD, Wilber Kd. Ekder Abuse Prevalence In The Community Settings: A Systemic Review And Meta -Analysis . Lancet Glob Health. 2017; 5(2): E147- E156
- [5]. Xn, G., Chen, G., Zhou, E., Li, N. & Zheng, X Prevalence Of Mental Disorders Among Older Chinese People In Tianjin Cinty.
- [6]. Yu, B. Steptae, A., Niu, Et., Prospective Associati on Of Social Isolation And Loneliness With Poor Sleep Quality In Older Adults. Quality Of Life Res. 27(3), 683- 692 (2018)
- [7]. Sheely LC (1996) Sleep Disturbances In Hospitalized Patients With Cancer. Oncol Nurse Forum 23(1): 109-111
- [8]. Farrahi J, Nakhaee N, Sheibani V, Garrussi B , Amirkafi A (2009) Psychometric Properties Of The Persian Version Of The PSQI Addendum For PTSD (PSWI-A) . Sleep Breath 13(3) :259 – 262.
- [9]. Yu, B. Steptae, A. Niu, Et. Al. Propective Association Of Social Isolation And Loneliness With Poor Sleep Quality In Older Adults. Quality Of Life Res. 27(3), 683 – 691 (2028).
- [10]. Dinesh Bhugta Et. Al. (2013) .What Is Mental Health . International Journal Of Social Psychiatry
- [11]. Kyung Lee E, Douglass AB. Sleep In Psychiatric Disorder: Where Are We Now?. The Canadian Journal Of Psychiatry. 2010; 55 (7): 403–12.
- [12]. NurBaharua Marasabessy Et. Al., Bensons Relaxation Therapy And Sleep Quality Among

- Elderly At A Social Institution In Inakaka, Indonesia 2020; 15 (2) : 65-72.
- [13]. Pragma Lodha, Et. Al., Geriatric Mental Health: The Challenges For India. (2018)
- [14]. Richa Singh, Et. Al., (2020) Development And Validation Of Mental Health Battery For Young Adults. Indian Journal Of Health And Well Being.
- [15]. Poonam Ponia Et. Al., Development And Standardization Of Mental Health Battery For Visually Impaired. (2018).
- [16]. Bonanni E, Tognoni G. Et. Al. Sleep Disturbances In Elderly Subjects: An Epidemiological Survey In An Italian District .2010;122:389- 397.
- [17]. Vitor P.O. Silva, Marcelo P.O. Silva, David B.C. Mantovani. Effects Of Physical Exercise On Sleep Quality In Elderly Adults: J. Aging Longev .2022,2 (2), 85- 97;
- [18]. Soganad Sarmadi, Sara Beigzadeh Et. Al., 2024 . Effects Of Bensons Relaxation Technique On The Quality Of Sleep Among Patients With Chronic Diseases: A Narrative Review, Doi: 10.32598/Jnrcp.
- [19]. Hadi Zolfagharzadeh, Mostafa Esfundari . Effects Of Bensons Relaxation Technique On Sleep Quality Of Patients With Cardiovascular Diseases: A Narrative Review, Doi : 10: 32598 / Jnrcp.
- [20]. Ari Wina Sani, I Gede Putu Darma Suyasa Et. Al., 2024. Bensons Relaxation Therapy : Impact On Blood Pressure In Hypertensive Older Adults – A Narrative Review
- [21]. Osman Ali S.A, Kamel N, Holmes S, Abdeyatah Arafat A. Effects Of Bensons Relaxation Technique On Psychological Distress And Sleep Quality Among Elderly. Health Education 2022; 10(1): 183- 191.
- [22]. Eman Balgeeh Meawed Elsayed , Abdel+ Hady El- Gilany. The Effects Of Bensons Relaxation Technique On Anxiety, Depression And Sleep Quality Of Elderly Patients Undergoing Hemodialysis.
- [23]. Habibollahpour, Mitra, M.Sc, F.Ranjesh, F.Muhammadi. The Impact Of Bensons Relaxation Technique On The Quality Of Sleep In The Eldelrl Doi: 10.1097/Tgr.
- [24]. Rohaya Rohaya, Wahida Putri Rahaya. 2021. The Quality Of Elderly Sleep Using Bensons Relaxation Technique: Jmchs
- [25]. Isabella Uchmanowicz Et. Al., 2019. The Relationship Between Sleep Disturbances And Quality Of Life In Elderly Patients With Hypertension.
- [26]. Juan Carlos Rodriguez, Et. Al., Med Clin North Am 2015. Sleep Problems In The Elderly.
- [27]. Kathryn J Et. Al., (2018) Association Of Pre-Existing Mental Health Condition With Increased Initial Symptoms.
- [28]. Taoying Lu, Yan Li; Ping Xia; Pittsburgh Sleep Quality Index (2014).
- [29]. Tatyana Mollayrva, Et. Al., (2016) . The Pittsburg Sleep Quality Index As A Screening Tool For Sleep Dysfunction In Clinical And Non- Clinical Samples: A Systemic Review And Meta Analysis.
- [30]. Adem P Spiral Et. Al., 2012. Validation Of The Pittsburg Sleep Quality Index And Epworth Sleepiness Scale In Older Black And White Women.
- [31]. Jutta Backhaus, Klaus Junghanns Et. Al., 2014. Test-Retest Reliability And Validity Of The Pittsburg Sleep Quality Index In Primary Insomnia.
- [32]. Ruchi Singh And Ragini Mishra Et. Al., 2010. Developments And Validation Of Mental Health Battery For Young Adults. Indian Journal Of Health And Well Being 11(10-12): 592 -595
- [33]. Buysse, DJ, Reynolds CF, Monk TH, Berman SR, Kupfer DJ: The Pittsburgh Sleep Quality Index (PSQI): A new instrument for psychiatric research and Practice. Psychiatry Research 28:193-213.
- [34]. Hong Teo R, Hui Cheng W, Jie Cheng L, Lau Y, Tiang Lau S. Global prevalence of social isolation among community-dwelling older adults: a systematic review and meta-analysis. Arch Gerontol Geriatr. 2023 Apr;107:104904.
- [35]. Yon YY, Mikton CR, Gassoumis ZD, Wilber KH. Elder abuse prevalence in community settings: a systematic review and meta-analysis. Lancet Glob Health. 2017;5(2):e147–e156. .
- [36]. World Population Prospect 2022: release note about major differences in total population estimates for mid-2021 between 2019 and 2022 revisions. New York: United Nations Department of Economic and Social Affairs, Population Division; 2022.
- [37]. Rodriguez JC, Dzierzewski JM, Alessi CA. Sleep problems in the elderly. Med Clin North Am. 2015 Mar;99(2):431-9. doi: 10.1016/j.mcna.2014.11.013. Epub 2014 Dec 30. PMID: 25700593; PMCID: PMC4406253.
- [38]. Silva VPO, Silva MPO, Silva VLdS, Mantovani DBC, Mittelman JV, Oliveira JVV, Pessoa JPdL, Chaves YL, Haddad MP, Andrielli O, et al. Effect of Physical Exercise on Sleep Quality in Elderly Adults: A Systematic Review with a Meta-Analysis of Controlled and Randomized Studies. *Journal of Ageing and Longevity*. 2022; 2(2):85-97.
- [39]. Sarmadi S, Beigzadeh S, Nazari AM, Soleimaninejadian S. Effect of Benson's relaxation technique on the quality of sleep among patients with chronic diseases: A

narrative review. J Nurs Rep Clin Pract.
2024;2(4):269-273.