



THE EFFECTIVENESS OF BENSON RELAXATION ON REDUCING ANXIETY AND DEPRESSION LEVELS IN PATIENTS WITH CHRONIC ILLNESS: A SCOPING REVIEW

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ABSTRACT

Anxiety and depression are commonly observed in populations with chronic physical illnesses. Treating symptoms of anxiety and depression in individuals with chronic physical illness can reduce psychological stress and improve overall physical health. One method to achieve a relaxation response is through the Relaxation Response Meditation Technique (RRMT) or Benson Relaxation. This study aims to determine the effectiveness of Benson Relaxation in reducing anxiety and depression levels in patients with chronic diseases. Literature sources were obtained through searches in PubMed, ScienceDirect, ProQuest, and SpringerLink databases, published between 2017-2024. The keywords used for the search included Benson Relaxation, Relaxation Response Meditation Technique (RRMT), Relaxation Response, Chronic Disease, Chronic Illness, Anxiety, and Depression. The articles obtained were then analyzed for differences and duplications. A diagram for visual representation of how the search and selection of articles were made is shown in the PRISMA-SR flow diagram. Data extraction was done by creating a table. Researchers identified seven articles. The interventions used were Benson Relaxation Technique and Benson Relaxation Therapy Combined with Spiritual Therapy to reduce anxiety and depression in patients diagnosed with multiple sclerosis, patients with heart failure, chronic kidney disease patients undergoing hemodialysis, elderly patients undergoing hemodialysis, hypertension, and elderly patients with kidney failure. Benson Relaxation has been proven effective in reducing anxiety and depression levels in patients with chronic illness.

Keywords: anxiety; benson relaxation; chronic illness; depression

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INTRODUCTION

Anxiety and depression are commonly observed in populations with chronic physical illnesses, including cardiovascular diseases, hypertension, hypercholesterolemia, asthma, Chronic Obstructive Pulmonary Disease (COPD), stroke, cancer, type 2 diabetes mellitus (DM), obesity, arthritis, Alzheimer's disease, HIV, and many others (Hughes et al., 2021). Chronic illness refers to a condition that lasts for one year or more and requires ongoing medical attention and/or limits daily activities. Patients with chronic physical diseases have higher anxiety levels and are two to three times more likely to experience clinical depression compared to the general population. The psychological status of individuals with physical disorders can worsen their health. According to the World Health Organization (WHO), depression and anxiety are mental disorders characterized by abnormal combinations of thoughts, perceptions, emotions, behaviors, and relationships with others. Anxiety and depression are each significantly linked to common chronic diseases such as Type 2 DM, hypertension, dyslipidemia, and rheumatoid arthritis (Baghdadi et al., 2021).

A systematic analysis of the global burden of depression conducted in the

United States shows that depression affects about 45 million people worldwide (James et al., 2018). In Riyadh, Saudi Arabia, the prevalence of depression among patients visiting outpatient clinics at three major primary care centers is estimated at 50%, with 31% of patients classified as mild, 13.4% experiencing moderate depression, 4.4% with moderate to severe depression, and 1% suffering from severe depression (Al-Qadhi et al., 2014). Based on the 2018 Riskesdas data, emotional mental health problems (depression and anxiety) in Indonesia increased to 9.8% compared to 6% in the 2013 Riskesdas data. The increase in emotional mental health problems varies by age group, with the highest percentage in the 65-75 and older age group at 28.6%, followed by the 55-64 age group at 11%, while the 45-54 and 15-24 age groups had the same percentage of 10%. The burden of depression and anxiety continues to rise, with significant impacts on both physical and mental health (Baghdadi et al., 2021).

Treating symptoms of anxiety and depression in individuals with chronic physical illness can reduce psychological stress and improve overall physical health (Hughes et al., 2021). Psychological care is almost always the treatment of choice unless anxiety is so severe that immediate intervention is needed to restore function and prevent immediate consequences or more severe conditions. Psychotherapy methods include behavioral therapy, cognitive behavioral therapy (CBT), psychodynamic therapy, family therapy, and parent training. Behavioral therapy focuses on using techniques such as guided imagery, biofeedback (to control stress and muscle tension), flooding as a means to reduce anxiety responses or eliminate specific phobias, and relaxation training. One method to achieve a relaxation response is through the Relaxation Response Meditation Technique (RRMT), created by Dr. Herbert Benson in 1970, a variation of Transcendental Meditation, a process of repeating a mantra to guide oneself toward self-awareness and relaxation (Keefer et al., 2001).

A study comparing the effects of RRMT and Reiki on prostate cancer patients to reduce anxiety, depression, and improve quality of life showed that emotional well-being and anxiety reduction were significantly higher in the RRMT group compared to the Reiki group (Beard et al., 2011). A study on the effects of RRMT on 80 patients undergoing hemodialysis showed a significant reduction in anxiety levels in the RRMT group (Mahdavi et al., 2013). The Benson Relaxation Technique has also been shown to be effective in reducing anxiety, depression, and improving sleep quality in elderly patients undergoing hemodialysis, as well as reducing depression, anxiety, and stress in multiple sclerosis patients (Meawad Elsayed, 2019) (Alzaghmouri et al., 2021). Therefore, a comprehensive exploration of the effectiveness of Benson Relaxation in reducing anxiety and depression levels in patients with chronic illnesses is necessary through a scoping review. This aims to determine the effectiveness of Benson Relaxation in reducing anxiety and depression levels in patients with chronic diseases.

METHOD

The approach used in this article is a scoping review. The purpose of using this approach is to identify the findings that have been made regarding the effectiveness of Benson Relaxation on anxiety and depression levels in patients with chronic illness. The steps in preparing the scoping review follow the five stages outlined in the framework by Arksey & O'Malley, which are: 1) Identifying the research question, 2) Identifying relevant studies, 3) Selecting studies, 4) Charting/data mapping, and 5) Summarizing and reporting the results (Winardi & Musak, 2021).

Stage 1: identifying the research question

The research question used in this scoping review is, "What is the effectiveness of Benson Relaxation on the levels of anxiety and depression in patients with chronic illnesses?"

Stage 2: identifying relevant studies

The articles used to compile this scoping review are related to the effectiveness of Benson Relaxation on anxiety and depression levels in patients with chronic illness. The inclusion criteria for selecting articles are: 1) Respondents diagnosed with chronic diseases with anxiety and/or depression, 2) written in English, 3) quantitative research, 4) published between 2017-2024, and 5) research articles, original articles, and available in full text.

Literature sources were obtained through searches in PubMed, ScienDirect, Proquest, and SpringerLink databases. The keyword used for the search included Benson Relaxation, Relaxation Response Meditation Technique (RRMT), Relaxation Response, Chronic Disease, Chronic Illness, Anxiety, and Depression.

Stage 3: selecting studies

The articles published between 2017-2024, to be used are first identified to ensure the quality and validity of the data. The identification procedure includes the following steps: 1) Checking the main topic to ensure the article is relevant to the subject matter of this research, 2) Checking the authors of the article, 3) Evaluating the journal name, volume, issue, and year of publication, 4) Reading the abstract. The abstract of a research article provides a complete summary, including the problem, purpose, methods, results, and conclusions. This method can be carried out systematically to improve the accuracy of article selection. The first selection involves checking relevant titles, while irrelevant ones are excluded. Next, the abstract of the article is reviewed, and those that meet the inclusion criteria are identified. A full text of the abstract is read to determine which studies will be included in the review.

Stage 4: charting / data mapping

The selected articles are then analyzed for differences and duplicates. A flowchart to represent the process of searching and selecting articles is created using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses for Scoping Review (PRISMA-SR) flow diagram. Data extraction is done by creating a table containing several components such as the author, year of publication, title, research design, sample, and research findings. The purpose of creating the data extraction table is to make it easier for the authors to describe the results of the review.

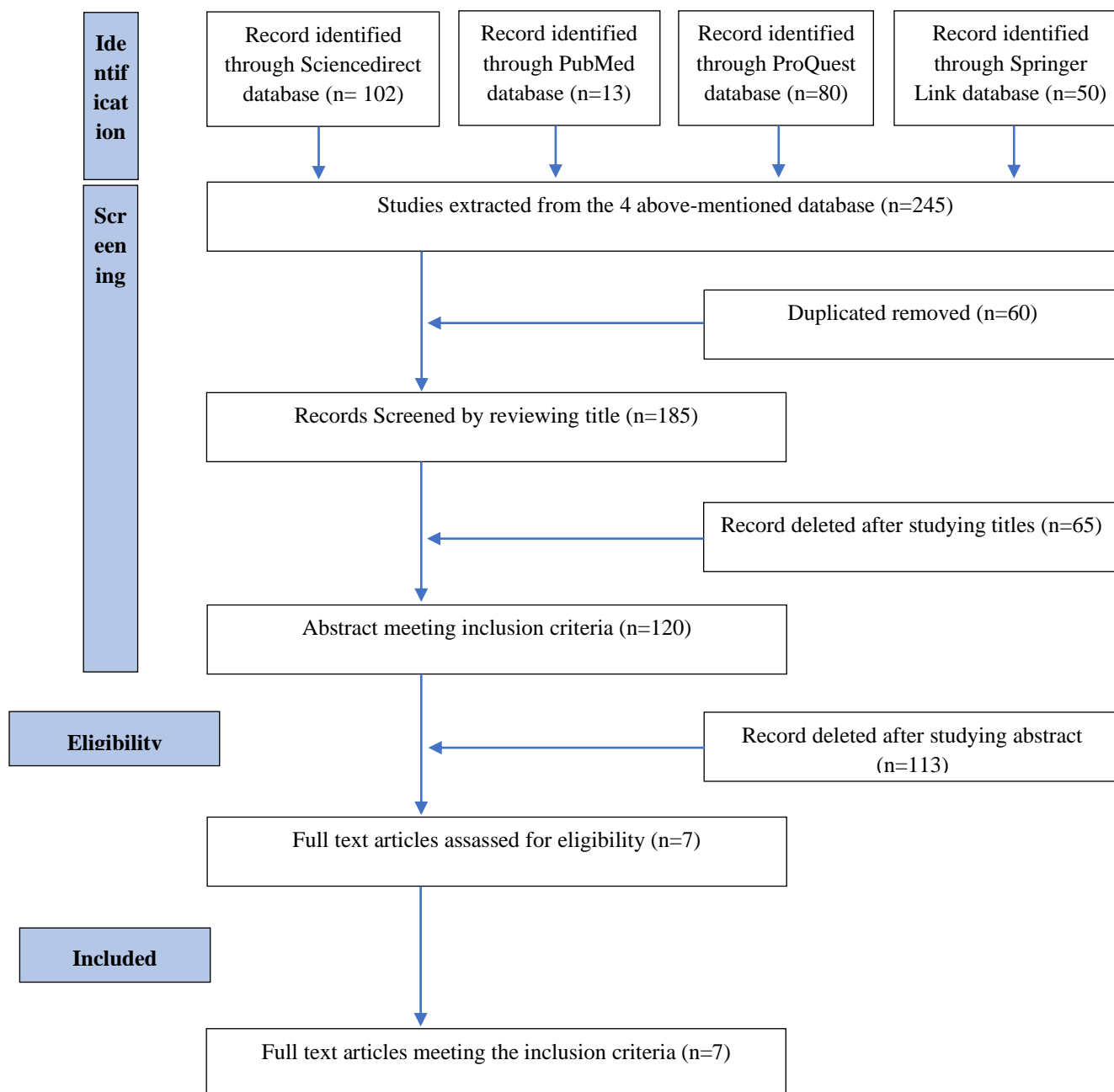


Figure 1. PRISMA Flowchart Diagram of Search and Screening Strategy

Stage 5: summarizing and reporting the results

The research is summarized descriptively, comparing the articles reviewed. The summary focuses on specific findings, including both significant and non-significant results, the types of interventions, duration of the interventions, intervention methods, and the respondents. This stage aims to clearly present the overall findings of the scoping review, offering insights into how Benson Relaxation affects anxiety and depression in patients with chronic illnesses, as well as identifying trends or variations across the studies included. The results are then

reported in a structured manner to highlight the effectiveness of the intervention based on the evidence gathered.

RESULT

Researchers identified seven articles related to the effectiveness of Benson Relaxation on anxiety and depression levels in patients with chronic diseases. The interventions used were benson relaxation technique and benson relaxation therapy combined with spiritual therapy to reduce anxiety and depression in patients diagnosed with multiple sclerosis, patients with heart failure, chronic kidney disease patients undergoing hemodialysis, elderly patients undergoing hemodialysis, hypertension, and elderly patients with kidney failure. Based on the findings of the articles, it can be concluded that the interventions given to patients with chronic diseases have a significant impact on reducing anxiety and depression. Interventions aimed at reducing anxiety and depression in patients with chronic diseases are presented in Table 1.

Table 1. Research Review Results (n=7)

No.	Authors and Year	Title	Research Design and Sample	Result
1	Ahmad Rajeh Saifan, Mohammad Eid Aburuz, Enas A. Dhaher, Abdallah Rayyan, Mira Al Jaberi, and Rami Masa'Deh (2021)	The Effect of Benson Relaxation Technique on Depression, Anxiety, and Stress of Jordanian Patients Diagnosed with Multiple Sclerosis: A Cross-Sectional Study	Quasi-experimental study on 105 Jordanian patients diagnosed with multiple sclerosis (60 intervention patients).	The results showed that the intervention group had significantly lower levels of depression, anxiety, and stress (DAS) compared to the control group post-intervention
2	Asad Allah Mohammed Aloran, Samiha Sohail Jarrah, Fatma Refaat Ahmed, Mohammad Eid AbuRuz (2023)	A quasi-experimental study to assess the effect of Benson's relaxation on anxiety and depression among patients with heart failure in Jordan	This quasi-experimental pre-and post-test study involved a sample of 204 patients who participated in the research.	In the intervention group, there was a statistically significant decrease in anxiety and depression levels after the intervention (P<0.001).
3	Abdul Muhith, Riska Rohmawati, Imamatul Faizah, Ratna Yunita Sari, Siti Nur Hasina (2024)	Application Of Benson Relaxation Therapy Combined With Spiritual Therapy To Reduce Anxiety In Chronic Kidney Disease Patients Undergoing Hemodialysis	Quasi-experimental with a one-group pre-post test design. The sample size was 20 respondents, specifically hemodialysis patients with CKD (Chronic Kidney Disease) as the intervention group.	The results showed a significant reduction in anxiety levels, from severe anxiety (70%) to mild anxiety (70%).
4	Eman Baleegh Meawad Elsayed, Eman Hassan Mounir Radwan, Neamit Ibrahim Elemam Ahmed Elashri, Abdel Hady El-Gilany (2019)	The Effect of Benson's Relaxation Technique on Anxiety, Depression and Sleep Quality of Elderly Patients Undergoing Hemodialysis	Quasi-experimental, pre-and post-intervention. The sample consisted of 92 elderly patients scheduled for maintenance hemodialysis.	Benson Relaxation Technique (BRT) was found to be an effective technique for reducing anxiety, depression, and improving sleep quality in elderly patients undergoing hemodialysis.
5	Merli Novita, Ni	Application of	Descriptive case study.	The results showed a decrease

	Luh Emilia, Sabarulin, Anggri Alfira Yunita Assa, Sena Wahyu Purwanza (2023)	Benson's Relaxation Therapy to Reducing Anxiety in Patients Hypertension: Case Study	The research subject consisted of one individual, and data were collected through interviews, observations, and document studies.	in anxiety levels from a score of 24 (moderate anxiety) to a score of 16 (mild anxiety).
6	Eman Mohamed Ebrahim Abd-Elraziek, Sahar Mahmoud Sayed Ahmed El Awady, Taghreed Talaat (2017)	The Effect of Benson's Relaxation Technique Training Program on Elderly Patients with Renal Failure	Quasi-experimental design. 60 elderly patients with renal failure divided into two equal groups (study and control group).	There was highly significant differences improvement for study group of elderly patients' knowledge, level of depression, stress and anxiety than control group post applying of the training program than pre.
7	Irma Darmawati, Dhika Dharmansyah, Rofi Noviyanti, Slamet Rohaedi (2021)	Implementing Benson's Relaxation Therapy to Decrease Depression in Elderly	Quantitative with a quasi-experimental design. This study involved 14 elderly individuals aged over 60 years..	In the elderly, the level of depression decreased after a three-week intervention, from moderate depression to mild depression in 85.7% of the respondents..

DISCUSSION

Depression and anxiety are mental disorders characterized by a combination of abnormal thoughts, perceptions, emotions, behaviors, and relationships with others. Anxiety and depression are both significantly associated with common chronic diseases (Baghdadi et al., 2021). Benson Relaxation Technique (BRT) is effective in reducing depression, anxiety, and stress (DAS) among patients diagnosed with multiple sclerosis (MS) (Saifan et al., 2021). These results are inconsistent with several studies that have shown the role of BRT in reducing DAS in patients diagnosed with MS (Mirhosseini et al., 2021). BRT is known to be very beneficial in reducing autonomic nervous system activity, improving the balance between the anterior and posterior hypothalamus, reducing sympathetic activity and catecholamine release, relieving muscle tension, reducing blood pressure and heart rate, and regulating respiration (Kartilah & Februanti, 2020). All of these effects may explain the significant effect of BRT in reducing participants' DAS levels. These positive results in the intervention group could be attributed to the fact that BRT increases parasympathetic activity and calmness, reducing the level of neurotransmission through the body and the negative impact of the disease (Jourabchi et al., 2020).

The major finding of the other study indicate that BRT was effective in reducing anxiety and depression in patients with heart failure (HF) (Aloran et al., 2024). According to the literature, when anxiety and depression coexist, they can exacerbate a patient's condition, potentially leading to severe consequences, including death (Celano et al., 2018). After utilizing BRT, the levels of anxiety and depression in the intervention group significantly decreased. Depression and anxiety can stimulate sympathetic nervous system and increase the need for oxygen and leading to chest pain fatigue and insomnia. BRT exerts its effect by stimulation of parasympathetic nervous system which has a contradictory effect generated by anxiety and depression (Ahmed Mohammed Elmetwaly et al., 2020).

Based on the intervention carried out for six days, it was found that the average anxiety in patients before and after the Benson relaxation technique intervention decreased. From the results of this study it is proven that patients with hemodialysis feel their body muscles begin to relax while undergoing the hemodialysis process, muscle tension begins to decrease, patients become calmer. From the results of the anxiety score after the Benson relaxation

action and spiritual therapy, the majority of respondents had mild anxiety from the beginning of moderate and severe anxiety (Muhith et al., 2024). In line with research conducted by Linda, et al., 2023, the results of the data analysis showed that there was an effect of Benson's relaxation on reducing anxiety in kidney failure patients undergoing hemodialysis (Anggita Arfiana & Karunianingtyas Wirawati, 2023). Other research also showed that applying Benson relaxation before hemodialysis can help to reduce the degree of anxiety on chronic renal failure patients undertake hemodialysis (Eltafianti & Ridfah, 2022).

Hemodialysis elderly patients usually experience high levels of psychological stress, anxiety, depression, and sleep disorders. Decreasing these problems, through non pharmacological methods like Benson's relaxation technique can be effective for decreasing and controlling patients' problems and provides them with more psychological resources to help them to cope with their physical condition (Meawad Elsayed, 2019). Benson's relaxation (RT) include mindfulness techniques that are affect on wide range of physical and psychological signs and sleep quality (Sahrakhil et al., 2017). The results of the present study found a significant positive difference in total mean score of anxiety of the studied elders after implementation of Benson's relaxation technique (BRT) (table 3). Depression is the second common psychological effects on elderly patients undergoing hemodialysis. This disorder has adverse effects on the course of disease and treatment process and is recognized as an independent risk factor for death for hemodialysis elderly patient. The results of the current study reported that a significant positive improvement was found in total mean score of depression of the studied elder (Heshmatifar et al., 2015).

Other study found that benson therapy reduce anxiety in patients with hypertension. Anxiety experienced by people with hypertension which is a chronic disease can experience increased heart rate, breathing, blood pressure, increased blood flow to various organs and increased body metabolism (Setyawan, 2017). As the final stage of the case study process, an evaluation was carried out with the results of blood pressure which was initially 160/80mmHg to 140/90 mmHg, and the anxiety value (HARS examination) from 24 (moderate anxiety) to 16 (mild anxiety) which means there is a decrease the level of anxiety experienced by the client even a decrease in blood pressure on the client (Novita et al., 2023). And several studies also say that this Benson therapy not only reduces anxiety but can also reduce hypertension, pain after surgery, stress, and sleep disturbances (Meawad Elsayed, 2019) (Emilia et al., 2022).

Anxiety, depression, and stress on other research also have significant decreased by Benson Relaxation. Results of this study showed that anxiety, depression and stress among study group decreased post applying training program than pre. According to the results, which indicated the positive effect of Benson relaxation technique on anxiety, depression and stress in hemodialysis of elderly patients (Abd-Elraziq ebrahim mohamed eman, awady el ahmed sayed mahmoud sahar, 2017). Some of the studies which confirms this point as Otaghi, et al., high prevalence of depression, stress and anxiety among elderly patient, and may be due to limited practiced time period while Benson's technique need prolonged period to be effective. Elderly patients require continuous applying of Benson's relaxation technique to reduce stress, depression and anxiety (Otaghi et al., 2016).

The other study was carried out at Panti Budi Pertiwi Bandung, Indonesia, to see how the Benson relaxation technique affected depression in the elderly. Researchers analyzed the decrease in depression in the elderly at Panti Budi Pertiwi because the elderly did Benson relaxation in a row twice a day for three weeks (Darmawati et al., 2021). Benson relaxation, known as religious relaxation, is a variation of Benson's relaxation response, in which relaxation is combined with religious beliefs (Wulansari et al., 2018). Relaxation techniques

minimize unpleasant emotions, including fear, anxiety, anger, and despair, by reducing muscle tension (Jourabchi et al., 2020). The relaxation response that involves the belief that is held will accelerate the occurrence of a relaxed state. In other words, the combination of the relaxation response involving the belief will multiply the benefits obtained from the relaxation response. The virtue of Benson relaxation is that the procedure is easy to do, can be done by yourself at any time, does not require a lot of money, and does not take a long time (Habibollahpour et al., 2019). Benson's relaxation lowers sympathetic nervous system activity and lowers endogenous catecholamine levels. It causes muscle relaxation and a decrease in tension, anxiety, and sadness (Jourabchi et al., 2020). This therapy has been widely used to reduce tension and achieve calm conditions such as relieving pain, stress, anxiety, insomnia, lowering blood pressure, and depression (Mahdavi et al., 2013).

CONCLUSION

Anxiety and depression are common issues experienced by patients, especially those with chronic diseases. The Benson relaxation therapy is a treatment that can reduce anxiety and depression. Research results show that Benson relaxation therapy is effective in lowering anxiety and depression levels in several cases of patients with chronic illnesses. When applied continuously and consistently, Benson relaxation therapy provides a calming effect.

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