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Review Article

Guided Imagery to Improve Mental Health in Cancer Patients with Chemotherapy: Literature Review

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Abstract

Aims: The purpose of this study was to review the research literature related to the use of Guided imagery on the mental health of cancer patients undergoing chemotherapy.
Methods: The design of this review is a literature review. Five quantitative experimental articles and RCTs were obtained from the database: PubMed, Proquest, Clinicalkey nursing, Science Direct, with the criteria of experimental articles providing guided imagery interventions for chemotherapy patients, published 2011-2021, in English and Indonesian.
Results: The findings of this review article were guided imagery intervention, two articles combined PMR relaxation, and three articles carried out guided imagery with deep breath relaxation. The duration of guided imagery differed in some studies from 15 minutes to 30 minutes with various sessions either supervised or conducted independently with compact disc (CD) recordings. The results of the findings that guided imagery can reduce mental health problems such as stress, anxiety and depression experienced by cancer patients undergoing chemotherapy.
Conclusion: Guided imagery is a practical, easy, and simple action that can be taken to reduce mental health problems in cancer patients with chemotherapy.

Keywords :
anxiety, cancer patients with chemotherapy, depression, guided imagery, mental health

INTRODUCTION

Cancer is a public health issue that affects both industrialized and poor countries (WHO, 2020). According to Globucan data, there are 19,292,789 new cases in the world, of all ages. Asia has the highest rate of cancer cases (43.7%), followed by Europe (25.5%) and North America (16.6%). (1). Local therapy (surgery, radiation, and cryotherapy) and systemic therapy are used to treat cancer (chemotherapy, hormone therapy, targeted therapy, immune therapy) (2).

Chemotherapy is a systemic treatment that has a number of negative effects in cancer patients (3). The perceived effect might manifest as mental health issues such as emotional discomfort, decreased quality of life, anxiety, depression, and physical

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symptoms of pain, exhaustion, dry mouth, sleeplessness, nausea, and vomiting (4). According to other studies, there was an interaction between physical and mental diseases experienced by chemotherapy patients, such as nausea and vomiting, which were also connected with mental conditions produced by worry and sadness (5).

During chemotherapy, cancer patients have a significant rate of mental health disorders. According to one study, 41.5 percent of cancer patients undergoing chemotherapy had anxiety difficulties, 19.5 percent have depression, and 28.8 percent have stress (6). Anxiety disorders can induce physiological difficulties such as difficulty sleeping, exhaustion, and pain, as well as behavioral changes that can impair cognition, weaken motivation, and reduce coping abilities and quality of life, all of which can affect treatment (7).

This condition necessitates prompt treatment in order to avoid further deterioration of the patient's state. Using complementary therapies is one of the treatments that can be used to overcome the negative effects of chemotherapy, particularly the influence on mental health (8). Alternative and complementary medicine has gained popular among patients and health professionals in recent years (9). Several studies, including cognitive-behavioral therapy, progressive relaxation, music therapy, acupressure, spirituality, and guided imagery, have been done to alleviate physical and psychological side effects of chemotherapy(9–11). One of them is It is highly encouraged to use guided imagery (GI) or guided imagination (12). Complementary therapy can be a therapeutic alternative since it has various advantages, including low complications, no intrusive and easily accessible procedures, and the ability to improve quality of life (13).

Guided imagery interventions to reduce mental problems have been widely studied, including the following: Guided imagery (GI) and PMR help improve quality of life (13) the combination of Guided imagery with PMR can improve mental state and reduce toxicity caused by chemotherapy (5). Guided imagery therapy and family psychoeducation therapy can reduce stress before and after chemotherapy (14,15). As a result, a review of the research literature on the use of Guided imagery on the mental health of cancer patients receiving chemotherapy is required.

METHODS

A literature review was conducted by searching for papers in different databases, including PubMed (4 articles), Proquest (263 articles), Clinical Key Nursing (19 articles), Science Direct (231 articles), and Secondary Database 2020 items. P: cancer patients undergoing chemotherapy, I: guided imagery, C: -, O: mental health status are the PICOs in this study (stress, anxiety, depression). Guided imagery research on cancer patients receiving chemotherapy, sample age > 18 years, quantitative experimental research style, in English and Indonesian, findings assessed as one of mental health state (stress, anxiety and depression). Published between 2011 and 2020. Speaks English as well as Indonesian. While the exclusion criteria, namely patients who received only radiation therapy and survived, published in the form of comments and editorials.

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To complete the literature search, eligible article references were reviewed, article selection strategies can be seen in the image. The studies were reviewed in a descriptive approach with the goal of simply summarizing the studies in order to describe the frequency and diversity of the use of Guided imagery as a treatment alternative for mental issues. The summary discusses the various guided imagery methodologies, study aims, participant characteristics, the nature and duration of guided imagery therapies, experimental designs, and instruments used to assess levels of anxiety and depression.

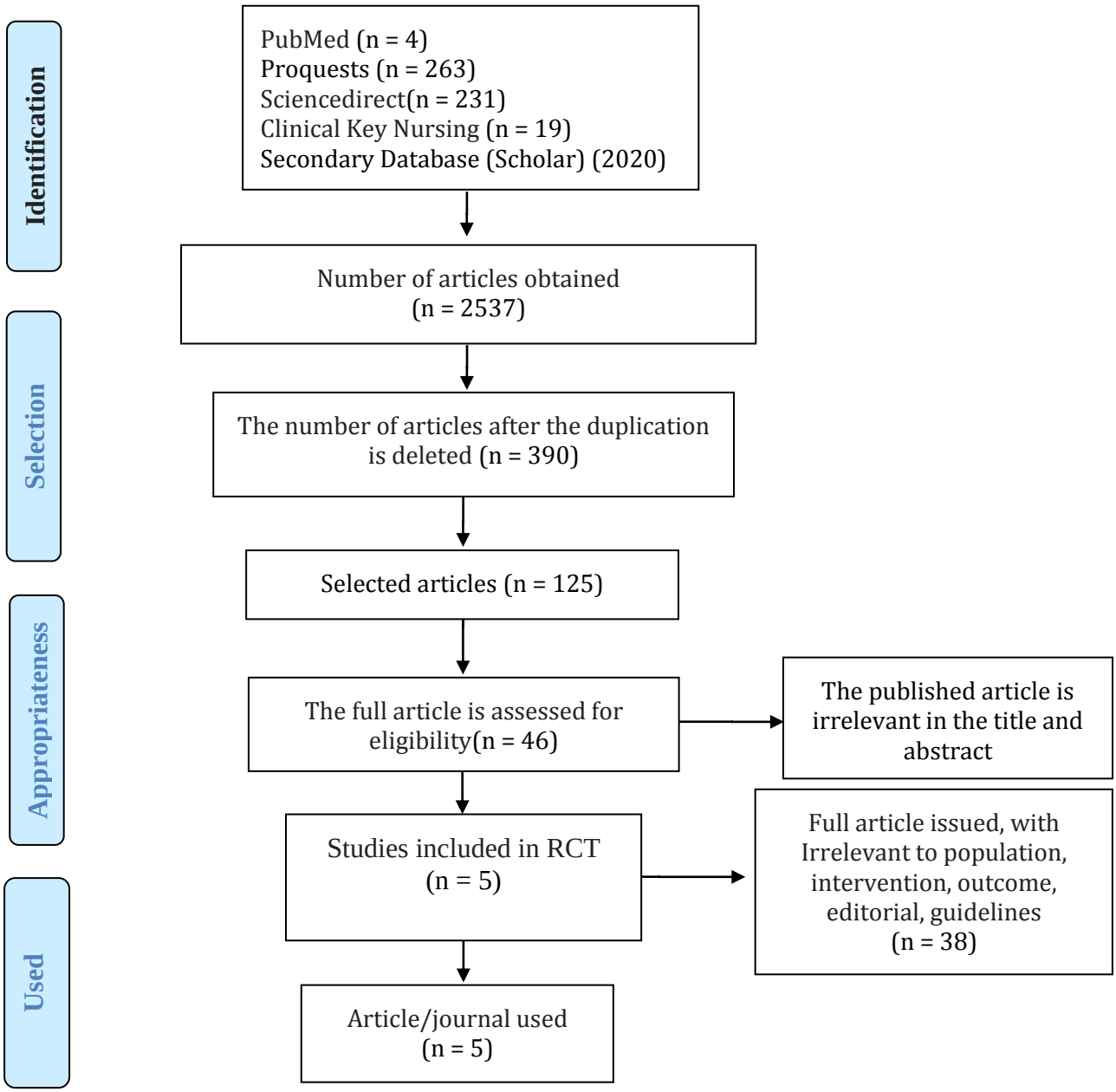

Diagram1: PRISMA Flow Diagram

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RESULTS

Results A survey of five publications in the literature reveals that of the three mental health status variables, there are various research that examine one of the indicators of mental health status. The first paper solely assesses anxiety (12), while the second, third, and fourth assess both anxiety and depression (16–18) Only depression is measured in the sixth item (19). Among the five investigations, one used the HADS and SDS to assess anxiety and depression (16), two used the SAS to assess anxiety (17,18), one used HARS to assess anxiety (12), and three used the BDI to assess depression (17–19).

(17) employed a randomized control study design to assess the efficacy of progressive muscle relaxation (PMR) with Guided imagery in breast and prostate cancer patients to a control group. A total of 256 were examined for eligibility, and 236 persons who satisfied the inclusion criteria were randomized. A total of 208 participants completed the trial, 104 men (control n = 52, intervention n = 52) and 104 females (control n = 52, intervention n = 52). The SAS and BDI-II were used to assess anxiety and depression. Participants in the control group received standard care (weekly appointments with a central psychologist), while those in the intervention group received four supervised PMR and GI sessions and one unsupervised session per week for three weeks. Text messages were sent to patients as a reminder to practice PMR and GI daily at the same time. one and the same. An intervention covering auditory, tactile, and olfactory imagery was established to stimulate the visualizing process. The GI screenplay displays the patient's smooth ups and downs in the sky and the perspectives from above, all while music masks the pulse of the alpha waves, and depicts a relaxing beach scene in participants who are terrified of heights. This practice consists of 2 minutes of breathing, 10 minutes of PMR, and 15 minutes of GI, with 11 muscle groups moving progressively from the legs to the facial muscles. After 3 weeks of intervention, data was collected, and 71 percent of participants were married, 68.8 percent were 51-60 years old, 52.3 percent were 40-50 years old, and 49 percent were educated. The mean anxiety score and the change in intervention depression score were substantially different from the control group, $p<0.001$. The limitation of this study is that the participants were not blinded, only the investigators were blinded because it was difficult to control for the placebo effect.

(18) Back with the same study as before, this time combining progressive muscle relaxation (PMR) with guided imagery (GI) to assess a set of symptoms in chemotherapy patients (pain, fatigue, nausea, vomiting, anxiety and depression). A total of 208 people took part in the study, 104 men and 104 women (intervention n=104, control n=104). The intervention included 4 supervised GI and PMR sessions weekly and daily without supervision based on a reinforced script with auditory, tactile, and olfactory images accompanied by soft music camouflaged with alpha wave pulses, 2 minutes of breathing exercises, followed by 10 minutes of PMR and GI for 15 minutes, while the control group received standard care as described in international guidelines for each of the reported symptoms. The bulk of those who took part were between the ages of 51 and 60, and 41 and 50. There is no statistically significant change in the sample's features. Anxiety was lower in the intervention group, with a score of 39.2 (SD=3.5, P0.001), while depression was higher in the control group, with a score of 35.

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The control group had 21 (SD=12.18) people with severe depression and the intervention group had 21 (SD=12.18) persons with moderate depression. The failure of this study to be blinded was due to patients being difficult to cover based on the given intervention, and it is unknown whether the patient followed the whole protocol each time. 21 (SD=12.18), Participants in the control group suffered from serious depression, while those in the intervention group suffered from moderate depression. The failure of this study to be blinded was due to patients being difficult to cover based on the given intervention, and it is unknown whether the patient followed the whole protocol each time. The control group had 21 (SD=12.18) participants with major depression, while the intervention group had 21 (SD=12.18) persons with mild depression. The failure of this study to be blinded was due to patients being difficult to cover based on the given intervention, and it is unknown whether the patient followed the whole protocol each time.

(16) With a quasi-experimental pretest-posttest design, 65 breast cancer patients were assigned to experimental group n=32 and control group n=33, participant characteristics included age (CG;52.3, IG49.3), married (CG;75.8 percent, GI: 56.2 percent), and basic education (CG;81.8 percent , GI: 50 percent). Both groups received standard chemotherapy education, and the intervention group received 1 hour of relaxation breathing exercises accompanied by Guided imagery before chemotherapy and was given a CD to relax with Guided imagery, 20 minutes a day at home until 7 days after chemotherapy. Data was collected before and after chemotherapy. In terms of demographic variables, there were no statistically significant changes. According to the findings of the pretest-posttest comparison in the two groups, between the pretest and posttest, the intervention group considerably reduced anxiety (p0.000) and depression (p0.000), and the comparison between the two groups was statistically significant. The study's drawbacks included its use of only inpatients, small sample size, and short duration. As a result, the findings cannot be applied to the general population.

(19) used a quasi-experimental methodology with purposeful sampling. From 2009 until 2011, The sample consisted mostly of women aged 40-59 years (CG:54.43 percent, GI:54.79%), married (CG:54.43%, GI:54.79%), housewife (CG:29.11%, GI:17.81 %), catholic, and primary school education (CG:29.11%, GI:17.81 %), catholic and primary school education (CG:29.11 %, GI:17) (CG:75.95%, GI: 54.79%). The intervention group used guided imagery relaxation techniques, with the first session taking place on the first day of treatment and led by researchers with 6 years of therapeutic expertise. The participants were given a copy of the CD at the end of the session, and it was suggested that they execute the exercises at home 1-3 times per week during chemotherapy treatment. Each session lasted 15 minutes, and the patient was initially asked to feel comfortable and do breathing and relaxation exercises, then imagine a safe place, feel relaxed and healed from their cancer, the participants were asked to think of something fun that they could not achieve but can now enjoy because they have recovered, the participants were then asked to be grateful for the time to their health, move and slowly open their eyes to return to where they are now. The results revealed a statistically significant difference (p0.005), with the intervention group having more patients without depression than the control group, demonstrating that this intervention helped to reduce depression in chemotherapy patients. However,

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because they have recovered, they may now appreciate it. Participants are then invited to give thanks for the time for their health, move, and slowly open their eyes to return to where they are now. The results revealed a statistically significant difference (p0.005), with the intervention group having more patients without depression than the control group, demonstrating that this intervention helped to reduce depression in chemotherapy patients. However, because they have recovered, they may now appreciate it. Participants are then invited to give thanks for the time for their health, move, and slowly open their eyes to return to where they are now. The results revealed a statistically significant difference (p0.005), with the intervention group having more patients without depression than the control group, demonstrating that this intervention helped to reduce depression in chemotherapy patients.

(12) conducted a quasi-experimental study with a one-group pre and post test design and a control group design "where there is an intervention group that received SGIM (spiritual Guided Imagery) therapy in the form of MP3 recordings as well as directions and explanations about chemotherapy procedures and motivation from nurses, while the control group only receives directions and explanations about chemotherapy procedures and motivation from nurses before p Purposive sampling was used to choose 60 participants (30 from the control group and 30 from the intervention group). The pre-test was performed one day before treatment for 30 minutes. Before listening to the SGIM tape, patients in the treatment group received 30 minutes of instruction and information about chemotherapy methods, as well as inspiration from nurses. The patient is then given an MP3 recording comprising SGIM therapy in the form of a spiritual approach by listening to guided imagination accompanied by spiritual music in accordance with the dose twice a day, at 10 a.m. and 10 p.m. before going to bed before chemotherapy. While the control group received information on chemotherapy methods and motivation from nurses for 30 minutes one day before chemotherapy, the post test was performed the day after chemotherapy. The average age of the patients was 50 years (52.80 9.68), female gender (80%), married (76.7%), Protestant (60%), primary school (56.7%), and household members (46.7%). Anxiety was measured one day before treatment, 30 minutes before chemotherapy, and one day after chemotherapy. The findings of this study show that, in general, SGIM therapy has a substantial effect on changes in anxiety in cancer patients undergoing chemotherapy at each measurement period. The p value for the difference test between groups on measuring 30 minutes before treatment and 1 day after chemotherapy was 0.05. The value of r square of 0.288 indicates the contribution of influence. This demonstrates that SGIM has a significant effect on lowering anxiety in cancer patients undergoing chemotherapy, with a 29 percent contribution; the remainder is influenced by variables other than this medication. The drawbacks of this study included the lack of masking on participants and researchers, as well as the relatively limited number of samples and short duration. The p value for the difference test between groups on measuring 30 minutes before treatment and 1 day after chemotherapy was 0.05. The value of r square of 0.288 indicates the influence's contribution. This demonstrates that SGIM has a significant effect on lowering anxiety in cancer patients undergoing chemotherapy, with a 29 percent contribution; the remainder is influenced by other variables than this therapy. The limitations of this study included the lack of masking on participants and researchers, as well as the relatively limited number of samples and

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From 5 through All of the studies analyzed demonstrated a significant reduction in anxiety and depression scores following the Guided imagery intervention, and the characteristics of the respondents were not statistically different among the five research(12,16,17,19).

DISCUSSION

From 5 through All of the studies analyzed demonstrated a significant reduction in anxiety and depression scores following the Guided imagery intervention, and the characteristics of the respondents were not statistically different among the five research(12,16–19).

The total period of exposure, which can be understood as a mix of the length of the study, the duration of the intervention used, and the frequency of usage of the intervention, is an important component of the treatment protocol (20). This is also consistent with research indicating that the total period of exposure to Guided imagery has an effect on the results (21). The duration of intervention ranged from at least 1 session (20 minutes-1 hour) before chemotherapy (12,16,19), 20 minutes a day for up to 7 days after chemotherapy (16), 1-3 times per week 15 minutes during chemotherapy treatment (19), 2 times a day at the same time before and after chemotherapy (17–19). Anxiety and depression levels were significantly reduced in all studies.

The outcomes of this study are also consistent with the current trend of implementing alternative therapies (9). The use of current medicine in cancer patients, such as chemotherapy, is sufficient to enhance cancer diagnosis, but it has both physical and mental adverse effects (22). As a result, complementary therapies such as mind body spirit guided imagery mixed with PMR, which has been shown to have a positive impact on mental states and disease parameters, must be considered (15). The study's findings also revealed a statistically significant increase in the quality of life of the elderly with breast cancer and prostate cancer following GI and PMR therapy(13).

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Guided imagery is the use of mental visualization (mental image) or sensory thoughts to improve mood and physical well-being; it is something we mentally see, hear, taste, smell, touch, or feel and relates perceptions, emotions, and physiological responses, so that important image selection is important (18). According to (23), image selection must be relevant to the goals of the project. So, if the intervention's goal is to relieve anxiety and depression, then anxiety and depression-specific imagination should be provided. Among the research studied that provide imaginative details are auditory, tactile, and olfactory imagery. The GI screenplay displays the patient's smooth ups and downs in the sky and the views from above enveloped in music that disguises the pulse of the alpha waves, relaxed but conscious, and depicts a tranquil beach scene in participants who are terrified of heights. (17,18) visualize a safe environment, feel comfortable and healed from their cancer, the participants were asked to think of something pleasurable that they could not achieve but can now enjoy because they have recovered, the participants were then encouraged to be grateful for the time for their health (19). According to their individual religions, MP3 recordings comprising SGIM therapy in the form of a spiritual approach by listening to guided imagination accompanied by appropriate spiritual music (12), and one study does not define the type of image presented.

The five studies reviewed provided guided imagery interventions in combination with PMR (17,18) and three other studies provided guided imagery only with deep breathing relaxation techniques (12,16,19) which is consistent with previous research that Guided imagery can be given alone or in combination with other relaxation techniques (9,15).

The sample size of participants who completed the analyzed studies ranged from 60 (12) to 208 (12). In the examined studies, the sample size revealed a substantial reduction in anxiety and depression levels in the intervention group.

CONCLUSIONS

One of the approaches that can provide relaxation and imaginative abilities that can ease or eradicate mental disorders such as stress, anxiety, and depression is guided imagery. This intervention is simple, inexpensive, and can be conducted anyplace in a peaceful atmosphere. More study on different populations is required, using well-designed procedures and systematics. This will also let scientists investigate the potential impact of Guided imagery on mental health disorders, which will increase nursing interventions.

REFERENCES

1. WHO. Who Report on Cancer. 2020.
2. American Cancer Society. Cancer Treatment and Survivorship Facts and Figures 2019-2021. American Cancer Society;
3. Khorinal EW. Konsep dasar pemberian kemoterapi pasien kanker. darmais hospital national cancer center. jakarta: Rumah Sakit Darmais; 2019.
4. Anestin AS, Dupuis G, Lanctôt D, Bali M. The Effects of the Bali Yoga Program for Breast Cancer Patients on Chemotherapy-Induced Nausea and Vomiting: Results

p-ISSN : 2354 8428 | e-ISSN: 2598 8727
Jurnal Keperawatan Komprehensif
Vol. 8 No.1 January 2022

of a Partially Randomized and Blinded Controlled Trial. J Evidence-Based Complement Altern Med. 2017;22(4):721–30.
5. Kapogiannis A, Tsoli S, Chrousos G. Investigating the Effects of the Progressive Muscle Relaxation-Guided Imagery Combination on Patients with Cancer Receiving Chemotherapy Treatment: A Systematic Review of Randomized Controlled Trials. Explore. 2018;14(2):137–43.
6. Sitepu yenni epriyanta B. Gambaran Tingkat Stres, Ansietas Dan Depresi Pada Pasien Kanker Payudara Yang Menjalani Kemoterapi di RSUP H. Adam Malik Medan. Talent Conf Ser Trop Med. 2018;1(1):107–13.
7. Lima TU, Moura ECR, Oliveira CMB de, Leal RJDC, Nogueira Neto J, Pereira EC, et al. Impact of a Music Intervention on Quality of Life in Breast Cancer Patients Undergoing Chemotherapy: A Randomized Clinical Trial. Integr Cancer Ther. 2020;19.
8. Gosain R, Gage-bouchard E, Ambrosone C, Repasky E, Gandhi S. Stress reduction strategies in breast cancer : review of pharmacologic and non-pharmacologic based strategies. Semin Immunopathol. 2020;(42):719–34.
9. Lindquist R, Snyder M, Tracy MF. Complementary And Alternative Therapies In Nursing. 7th ed. New York: Spiringer Publishing Company; 2014.
10. Herniyanti, Saleh A, Irwan AM. Intervensi perawatan spiritual bagi pasien kanker : Tinjauan sistematis. J keperawatan dan Pemikir Ilm. 2019;5(1):1–15.
11. Nurlina, Syam Y, Saleh A. Terapi musik efektif terhadap penurunan kecemasan pada pasien kanker. Jurnak Keperawatan Silampari. 2021;4(2):634–42.
12. Nuwa MS, Kiik SM. Pengaruh Spiritual Guided Imagery and Music terhadap Kecemasan Pasien Kanker yang Menjalani Kemoterapi. jurnak Ners dan Kebidanan. 2020;7(1):95–106.
13. Shahriari M, Dehghan M, Pahlavanzadeh S, Hazini A. Effects of progressive muscle relaxation, guided imagery and deep diaphragmatic breathing on quality of life in elderly with breast or prostate cancer. J Educ Health Promot. 2017 Apr;6:1.
14. Renidayati. Penurunan Stres Klien Ca Mamae Melalui Guided Imagery Relaxtion Dan Family Psychoeducation Theraphy. menara Ilmu. 2019;XIII(2):120–5.
15. Greenlee H, DuPont-Reyes MJ, Balneaves LG, Carlson LE, Cohen MR, Deng G, et al. Clinical practice guidelines on the evidence-based use of integrative therapies during and following breast cancer treatment. HHS Public Access ,CA Cancer J Clin. 2018;67(3):194–232.
16. Chen SF, Wang HH, Yang HY, Chung UL. Effect of relaxation with guided imagery on the physical and psychological symptoms of breast cancer patients undergoing chemotherapy. Iran Red Crescent Med J. 2015;17(11):11–3.
17. Charalambous A, Giannakopoulou M, Bozas E, Paikousis L. A Randomized Controlled Trial for the Effectiveness of Progressive Muscle Relaxation and Guided Imagery as Anxiety Reducing Interventions in Breast and Prostate Cancer Patients Undergoing Chemotherapy. Evidence-based Complement Altern Med. 2015;2015.
18. Charalambous A, Giannakopoulou M, Bozas E, Marcou Y, Kitsios P, Paikousis L. Guided imagery and progressive muscle relaxation as a cluster of symptoms management intervention in patients receiving chemotherapy: A randomized control trial. PLoS One. 2016;11(6):1–18.

p-ISSN : 2354 8428 | e-ISSN: 2598 8727

Jurnal Keperawatan Komprehensif
Vol. 8 No.1 January 2022

19. Nicolussi AC, Sawada NO, Cardozo FMC, Paula JM de. RELAXATION WITH GUIDED IMAGERY AND DEPRESSION IN PATIENTS WITH CANCER UNDERGOING CHEMOTHERAPY*. Cogitare enferm. 2016;21(4):1–10.
20. Menzies V, Jallo N. Guided Imagery as a Treatment Option for Fatigue : NIH Public Access. 2013;29(4):279–86.
21. Watanabe E, Fukuda S, Shirakawa T. BMC Complementary and Effects among healthy subjects of the duration of regularly practicing a guided imagery program. 2005;8:1–8.
22. Irawan E, Rahayuwati L, Yani DI, Keperawatan F, Keperawatan F, Padjadjaran U. Hubungan Penggunaan Terapi Modern dan Komplementer terhadap Kualitas Hidup Pasien Kanker Payudara Relationship between Modern and Complementary Therapies on the Life Quality of Breast Cancer Patients Undergoing Chemotherapy. J Nurs Padjadjaran. 2017;5(April):19–28.
23. Kahn KL, Schneider EC, Malin JL, Adams JL, Epstein AM. Patient centered experiences in breast cancer: predicting long-term adherence to tamoxifen use. Med Care. 2007;431–9.