Health Problems of Civilization
eISSN: 2354-0265, ISSN: 2353-6942

CASE STUDY

Nurse-led visual-aided flower imagery intervention in breast cancer patients: a case report

Şule Çalışır Kundakçı[1,2(A,B,C,D,E,F,G)], **Ceren Uysal Bacıoğlu**[3(B)]

[1]Department of Nursing, Faculty of Health Sciences, Istanbul Beykent University, Istanbul, Türkiye

[2]Department of Internal Medicine Nursing, Institute of Health Sciences, Istanbul University-Cerrahpaşa, Istanbul, Türkiye

[3]Chemotherapy Unit, Memorial Bahçelievler Hospital, Istanbul, Türkiye

Çalışır Kundakçı Ş, Uysal Bacıoğlu C. Nurse-led visual-aided flower imagery intervention in breast cancer patients: a case report. Health Prob Civil. https://doi.org/10.29316/hpc/230984

Tables: 0
Figures: 0
References: 15
Submitted: 2026 May 11
Accepted: 2026 Aug 10

Address for correspondence: Şule Çalışır Kundakçı, Department of Nursing, Faculty of Health Sciences, Istanbul Beykent University, Cumhuriyet Neighborhood, Beykent, Büyükçekmece/ Istanbul, Türkiye, e-mail: sulecalisir@gmail.com
ORCID: Şule Çalışır Kundakçı https://orcid.org/0000-0002-8820-8046

Abstract

The diagnosis and treatment of breast cancer cause significant psychological distress in patients. Nurse-led holistic and creative care approaches play a crucial role in supporting cognitive and emotional coping. This case report examines changes in coping, depression, anxiety, and stress following a nurse-led visual-aided flower imagery supportive intervention in two breast cancer patients receiving hormone therapy. The two cases were purposively selected to represent contrasting points on the illness trajectory (a long-term survivor with recurrence versus a recently diagnosed patient), enabling examination of how the same intervention operates across different illness phases. The intervention was conducted online in a single 25-30 minute session. The participants were assessed using the Turkish versions of the Cognitive Emotional Coping with Cancer Scale (CECC) and Depression Anxiety Stress Scale-21 (DASS-21) before the intervention. Nine AI-generated flower visuals were presented, and patients selected the flower best representing them. Semi-structured questions explored symbolic meanings related to their illness experience. The CECC was re-administered immediately after, and the DASS one week later. Qualitative data were analyzed thematically, revealing four themes: symbolic transformation of the illness experience, emergence of inner strength and resilience, indirect expression of unspoken emotions, and psychological anchor. The findings suggest nurse-led imagery-based supportive interventions may effectively support emotional expression, cognitive awareness, and coping in oncology nursing care.

Keywords: cognitive coping, guided imagery, psycho-oncology, nursing care, breast cancer

Introduction

Breast cancer is among the most prevalent malignancies worldwide and imposes a profound psychological burden on those affected. The diagnosis itself, alongside treatment-related side effects and ongoing uncertainty about disease recurrence, can substantially elevate levels of depression, anxiety, and stress [1,2]. Addressing these psychosocial dimensions of cancer care is increasingly recognized as integral to patient-centered oncology nursing practice.

Guided imagery is a mind-body intervention that uses mental images to promote relaxation, emotional processing, and psychological well-being. It has been applied in various healthcare settings to help patients cope with illness-related distress [3]. Through the work of researchers such as Achterberg, Rossman, and Naparstek, imagery has been incorporated into clinical nursing practice and has been used over time in fields such as oncology, palliative care,

surgery, and psychiatric nursing [3,4]. Imagery is a defined nursing intervention that nurses can independently implement, listed under the headings “Guided Imagery” and “Simple Guided Imagery” in the Nursing Interventions Classification (NIC) [5]. Holistic nursing literature defines imagery as a complementary practice that nurses can use to provide biopsychosocial and spiritual care holistically [6].

Imagery is not equivalent to psychotherapy. In standard clinical definitions, imagery is positioned as a supportive care strategy that uses structured mental images to support coping, relaxation, symptom management, and self-awareness; it is not aimed at diagnosing psychopathology or treating a clinical disorder [3-5]. Therefore, imagery is widely applied by nurses with appropriate training within the nursing field; it is defined in the nursing practice field by the Oncology Nursing Society (ONS) and the American Holistic Nurses Association [5,6]. The intervention in this study also does not involve psychotherapeutic formulation or diagnostic psychological evaluation; it aims to provide the patient with a structured space for symbolic expression and meaning-making.

Creative arts-based therapies are a group of interventions that facilitate the expression and meaning-making of emotions using art, music, dance, or symbolic-visual materials. Systematic reviews and meta-analyses in cancer populations document that creative arts-based interventions and imagery practices can have positive effects on anxiety, mood, and quality of life [3,7,8]. In this context, visual-aided flower imagery can be considered an adaptation of classical guided imagery: unlike classical imagery, which is based entirely on mental images, structured flower images are used as external visual stimuli to facilitate the symbolic processing of the illness experience. Flowers have universally recognizable symbolic associations (such as life, resilience, transience, hope, and beauty) that vary across cultures; therefore, they have the potential to offer patients an accessible, non-threatening, and difficult-to-verbologize symbolic medium for expressing their illness experiences.

Despite the potential value of this approach, it has not been previously described in a case report within the context of oncology nursing. This case report describes the implementation of a nurse-led visual-aided flower imagery supportive intervention in two breast cancer patients and examines its impact on cognitive-emotional coping, depression, anxiety, and stress.

The aim of this case report is to describe, through two patients, the changes observed in cognitive and emotional coping processes and levels of depression, anxiety, and stress following a nurse-led visual-aided flower imagery intervention in breast cancer patients.

Case description

The cases were purposefully selected (purposive sampling) to represent two different and complementary points in the course of breast cancer. This selection was not intended to directly compare the two patients but rather to provide examples of the applicability of the same intervention in different disease trajectories and the diversity of experiences. The first case represents a patient with a long history of disease who is under active follow-up again due to recurrence; the second case represents a patient who is at the beginning of diagnosis and active treatment. Both patients were receiving hormone therapy and had no prior experience with imagery or psychosocial interventions. This complementary presentation allowed for observation of the responses to the intervention and the diversity of experiences in different clinical contexts rather than focusing on a single disease stage. The selection of the two cases was not based on a paired comparison design but rather on an informative case selection approach frequently used in case report literature.

Measurement tools

Depression Anxiety Stress Scale-21 (DASS-21)

The DASS-21 is a 21-item short form of the original 42-item Depression Anxiety Stress Scale developed by Lovibond and assesses symptoms of depression, anxiety, and stress. In this study, the Turkish DASS-21, adapted to Turkish culture by Sarıçam and proven to be valid and reliable, was used [9]. In Sarıçam's study, the internal consistency coefficients (Cronbach's alpha) of the scale were reported as 0.81 for the depression subscale, 0.80 for the anxiety subscale, and 0.75 for the stress subscale. The scale is a four-point Likert type and evaluates symptoms from the past week. Higher scores indicate a higher level of symptom presence for the relevant subscale.

Cognitive Emotional Coping with Cancer Scale (CECC)

The CECC scale, developed by Cwik et al. was adapted into Turkish by Topallı [10]. The scale was developed to assess the cognitive and emotional coping strategies of cancer patients regarding their illness. This scale is a multidimensional tool that assesses a patient's

cognitive-emotional repertoire for coping with cancer, including the sub-dimensions of Optimism and Hope, Distraction and Suppression, Uncontrollable Thoughts, Cognitive Re-evaluation, and Cognitive Avoidance. The scale is a six-point Likert type. In this study, the Turkish version, whose validity and reliability were examined by Topallı for Turkish cancer patients, was used [10].

Case 1

The first patient was a 52-year-old woman who received a breast cancer diagnosis in 2014 and was currently under follow-up due to disease recurrence, receiving hormone therapy. She had no prior experience with imagery-based interventions. Baseline assessment prior to the intervention indicated elevated scores on the DASS-21 [9], reflecting moderate levels of depression, anxiety, and stress. The CECC [10] indicated limited use of positive reappraisal and acceptance as coping strategies.

Case 2

The second patient was a 41-year-old woman recently diagnosed with breast cancer in 2024 and was also receiving hormone therapy. She had no prior experience with psychosocial interventions. Her baseline DASS-21 scores suggested mild to moderate anxiety and stress, with lower depressive symptomatology. The CECC scores reflected a tendency toward catastrophizing, with limited use of positive refocus strategies.

Case analysis

Intervention procedure

In both cases, the patients were first informed, and their written informed consent was obtained. An appointment was then scheduled for a suitable time. The intervention was conducted online via video call in a single meeting. Each session lasted approximately 25 to 30 minutes. The nurse, who was trained in psycho-oncology nursing and supportive mind-body interventions, adopted a facilitative, non-directive, supportive, and reflective approach throughout the process. The patients were presented with nine AI-generated flower images on

the screen in sequence. The images included a sunflower, rose, cherry blossom (sakura), lavender, violet, orchid, daisy, lotus, and tulip. The patients were invited to observe each flower and choose the one they felt best represented them. After the selection, a series of semi-structured questions were asked exploring the meaning attributed to the chosen flower, the perceived similarities between the patient and the flower, and the emotions evoked during the process. The patients were then invited to choose a second flower, along with follow-up questions focusing on the transition between choices and the significance of change.

The CECC was administered again at the end of the session. The DASS was administered again via telephone one week later. The qualitative interviews were recorded, transcribed verbatim, and analyzed using thematic analysis according to Braun and Clarke's [11] six-stage framework.

Data analysis

Quantitative data (scale scores) were presented descriptively on a case-by-case basis to compare pre- and post-intervention levels. Due to the design (case report), no statistical inferences were made; trends in direction of change and clinical significance were reported descriptively. In qualitative data analysis, Braun and Clarke's six-stage thematic analysis approach was adopted [11], which included familiarization with the data, creation of initial codes, creation of themes, review of themes, identification and naming of themes, reporting. In the coding and theme creation process, two researchers independently performed the analysis, and the differences were resolved through discussion and consensus.

Thematic analysis findings

Analysis of the interview with both patients revealed four main themes.

Theme 1: Symbolic Transformation of the Illness Experience

Both patients used their chosen flower as a tool to construct a symbolic narrative of their illness. Instead of directly describing their experience, they imbued the flower image with meaning in ways that reframed the illness within a broader personal story. Case 1 chose the

lotus flower and spontaneously associated it with the experience of continuous effort and perseverance throughout her cancer journey:
"*The lotus grows with difficulty... with struggle. That was the first thing that came to mind*".

Case 2 chose the sakura flower and associated it with feelings of joy and anticipation, explicitly linking the image to future plans rather than illness. This reframing moved the patient away from an illness-centered identity towards forward-looking, life-affirming imagery:
"*The sakura means happiness and joy to me. I can identify with it*".

Theme 2: The Emergence of Inner Strength and Resilience

The second flower choices made by both patients illuminated aspects of their coping capacities that had not been explicitly articulated in earlier conversations. Case 1, who initially chose the lotus flower as a symbol of resilience, later identified with the sunflower, representing renewal and hope:
"*The sunflower reminds me of new things. My thoughts drift to it from time to time*".

Case 2 chose the daisy as their second choice and expressed its qualities in terms strikingly consistent with resilience theory:
"*It can grow anywhere. It is not delicate or fragile. It can overcome any challenge and still emerge. It doesn't require much care*".

In both cases, the secondary choice provided richer access to the patient's self-perception as a capable and resilient individual, demonstrating that the iterative nature of the intervention facilitated progressively deeper self-disclosure.

Theme 3: Indirect Expression of Unexpressed Emotions

Flower imagery provided a safe, symbolic medium through which emotions could emerge without requiring direct verbal expression. Case 1 reported not feeling any subjective emotional shift during the session; however, her eyes filled with tears during the lotus discussion. This behavioral indicator suggests that the symbolic content mobilized emotional material bypassing conscious verbal expression. This pattern is consistent with the psychological defense mechanism of intellectualization and highlights the potential of symbolic mediation to access repressed or unconscious emotional content.

In contrast, Case 2 reported an overtly positive emotion. When asked if she felt any change in mood during the session, she responded positively and described experiencing happiness. The difference between the two cases highlights the individually variable nature of emotional interaction with symbolic imagery.

Theme 4: A Psychological Anchor

Both patients reported that this image remained as a mental reference point beyond the session and served as a psychological anchor in daily life. Case 1 noted that in the days following the session, their thoughts spontaneously returned to the image of sunflowers, associating this with feelings of freedom and a desire to breathe easily:
"*My thoughts drift to sunflowers from time to time. For me, the greatest freedom in life is being able to breathe freely*".

Case 2 highlighted a broader benefit of the intervention for patients undergoing chemotherapy, explaining how such an activity could provide immediate emotional relief:
"*If someone interacts with them and does something like this, people can get out of that mood very quickly. They feel better in a short time*".

Quantitative findings

Following the intervention, both patients demonstrated improvements in CECC scores, particularly on subscales measuring positive refocusing, putting into perspective, and positive reappraisal. The DASS-21 scores, assessed one week after the intervention, showed a downward trend in depression, anxiety, and stress in both cases. These quantitative findings, while preliminary and not statistically generalized given the case study design, are consistent with the qualitative and suggest directionally favorable outcomes associated with the intervention.

Discussion

This case report demonstrates that a single-session, nurse-led visual-aided flower imagery intervention promoted positive trends in emotion expression, cognitive-emotional coping, and psychological well-being in two breast cancer patients. Positive trends in the CECC

and DASS-21 scores in quantitative data are consistent with qualitative findings. These findings are consistent with recent systematic reviews and meta-analyses showing that imagery-based interventions can have positive effects on anxiety, depression, and quality of life in cancer populations [3,7,8]. The contrast between the two cases is instructive rather than problematic. Both patients were found to have used their chosen flowers to symbolically reframe their experiences of illness. Case 1's identification of the lotus with its growing through effort qualities and Case 2's association of the sakura with future-oriented joy demonstrate that the experience of illness can be reconstructed not only in pathological terms but also within a personal narrative framework. This finding is consistent with Park's meaning-making model: the model suggests that the process by which patients harmonize life-altering events such as cancer with global meaning systems is a fundamental component of psychological adjustment [12]. In their second flower choices, both patients positioned themselves as resilient, strong, and open to renewal, which can be interpreted as a clinical manifestation of resilience theory [13]. Despite the positive change reflected in the scale data of Case 1, the fact that she did not verbally report a change in emotion during the session but cried during the lotus discussion suggests that indirect expression of emotion through symbols can provide a functional channel, especially in patients exhibiting cognitive patterns. This indicates that symbolic communication, especially in patients who have difficulty directly verbalizing emotions, can be a valuable tool in nursing psychosocial care. Art, imagery, and metaphor-based interventions support the literature that they can provide access to unconscious or unverbalized emotional content in cancer patients [7,8]. The fact that both patients continued to carry the flower image they chose as a mental reference point after the session shows that even a short, single-session intervention can be incorporated into the patient's daily experience. This finding is consistent with existing evidence that short-term, low-intensity psychosocial interventions can provide a sustainable coping resource even in cancer patients. The conceptualization that imagery can function as an internal resource to which the patient spontaneously returns outside of the session has long been emphasized in the guided imagery literature [4].

The four themes identified in this study:symbolic transformation of the illness experience, emergence of inner strength and resilience, indirect expression of unspoken emotions, and psychological anchor, are consistent with mechanisms described in the broader guided-imagery and expressive-arts literature. Meta-analytic evidence indicates that guided imagery reduces anxiety, distress, and depressive symptoms and improves quality of life in cancer patients [3], and creative arts therapies show comparable benefits [7,8].

Conclusions

This case report demonstrates that a single session of nurse-led visual-aided flower imagery may facilitate emotional expression, support cognitive reappraisal of the illness experience, and contribute to positive trends in psychological well-being among breast cancer patients. The symbolic quality of floral imagery appears to offer a non-threatening channel for emotional disclosure, particularly for patients who experience difficulty with direct verbal expression of distress. The intervention was brief, feasible within a telehealth format, and perceived as meaningful and beneficial by both participants.

The four themes identified as the symbolic transformation of the illness experience, emergence of inner strength and resilience, indirect expression of unspoken emotions, and the psychological anchor collectively suggest that creative, imagery-based approaches can activate adaptive coping mechanisms and support the process of illness meaning-making in oncology populations.

These findings contribute to a growing body of evidence supporting the integration of creative nursing interventions into oncology care [4, 7]. Nurse-led delivery is both clinically appropriate and practically advantageous, as nursing professionals maintain consistent therapeutic relationships with patients and possess the interpersonal competencies necessary to facilitate reflective, supportive dialogue [14]. The integration of complementary and creative approaches into nursing practice has been increasingly advocated as a means of providing holistic, patient-centered care that addresses the psychosocial dimensions of illness alongside biomedical treatment [15]. In conclusion, nurse-led visual-aided flower imagery represents a promising, low-cost, and patient-centered supportive care approach as a component of comprehensive oncology nursing practice.

Disclosures and acknowledgements

This case report was presented as an oral presentation at the 2nd International Oncology Nursing Association Congress.

The authors declare no conflicts of interest with respect to the research, authorship, and/or publication of this article.

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Written informed consent was obtained from both patients prior to participation. Since the study is a case report, the ethical committee approval was not required. All the data were anonymized and patients are not identifiable from the information presented. The study was conducted in accordance with the principles of the Declaration of Helsinki.

Artificial intelligence (AI) was not used in the creation of the manuscript. The AI-generated flower visuals used in the intervention were created by the corresponding author using publicly available AI image generation tools solely for the purpose of this study.

References:

1. Mo W, Ding X, Wu X. Prevalence of depression among breast cancer patients in Asia: a systematic review and meta-analysis. Frontiers in Oncology. 2026; 16: 1665569. https://doi.org/10.3389/fonc.2026.1665569
2. Pilevarzadeh M, Amirshahi M, Afsargharehbagh R, Rafiemanesh H, Hashemi SM, Balouchi A. Global prevalence of depression among breast cancer patients: a systematic review and meta-analysis. Breast Cancer Research and Treatment. 2019; 176(3): 519-533. https://doi.org/10.1007/s10549-019-05271-3
3. Bozkurt-Duman C, Arici-Türk H, Erbay-Dalli Ö, Yildirim Y. The effectiveness of guided imagery on psychological outcomes and quality of life in cancer patients: a systematic review and meta-analysis. Supportive Care in Cancer. 2025; 33(11): 952. https://doi.org/10.1007/s00520-025-10016-8
4. Correa-Morales JE, Mantilla-Manosalva N, Rodríguez-Cardona X, Bedoya-Muñoz LJ, Florez-Vargas B, León MX, et al. Guided imagery for symptom management of patients with life-limiting illnesses: a systematic review of randomized controlled trials. Journal of Palliative Medicine; 2024; 27(6): 802-812. https://doi.org/10.1089/jpm.2023.0445
5. Wagner CM, Butcher HK, Clarke MF. Nursing Interventions Classification (NIC). 8th ed. Elsevier; 2023.
6. Blaszko Helming MA, Shields DA, Avino KM, Rosa WE. Dossey & Keegan's holistic nursing: a handbook for practice. 8th ed. Burlington, MA: Jones & Bartlett Learning; 2022.
7. Abu-Odah H, Sheffield D, Hogan S, Yorke J, Molassiotis A. Effectiveness of creative arts therapy for adult patients with cancer: a systematic review and meta-analysis. Support Care Cancer. 2024; 32: 430. https://doi.org/10.1007/s00520-024-08582-4

8. Xu Z, Liu C, Fan W, Li S, Li Y. Effect of music therapy on anxiety and depression in breast cancer patients: systematic review and meta-analysis. Sci Rep. 2024; 14: 16532. https://doi.org/10.1038/s41598-024-66836-x
9. Sarıçam H. The psychometric properties of Turkish version of Depression Anxiety Stress Scale-21 (DASS-21) in health control and clinical samples. Journal of Cognitive-Behavioral Psychotherapy and Research. 2018; 7(1): 19-30. https://doi.org/10.5455/JCBPR.274847
10. Topallı B. [Validity and reliability study of the Turkish version of the Cognitive Emotional Coping Scale with Cancer and examination of factors affecting post-traumatic growth in cancer patients]. [Master's thesis]. Erzurum: Atatürk University; 2023 (in Turkish). https://doi.org/10.13140/RG.2.2.30993.61285
11. Braun V, Clarke V. Thematic analysis: a practical guide. London: SAGE Publications; 2022.
12. Park CL. Making sense of the meaning literature: an integrative review of meaning making and its effects on adjustment to stressful life events. Psychological Bulletin. 2010; 136(2): 257-301. https://doi.org/10.1037/a0018301
13. Molina Y, Yi JC, Martinez-Gutierrez J, Reding KW, Yi-Frazier JP, Rosenberg AR. Resilience among patients across the cancer continuum. Clinical Journal of Oncology Nursing. 2014; 18(1): 93-101. https://doi.org/10.1188/14.CJON.93-101
14. Trisyani Y, Nuraeni A, Anna A, Priambodo AP, Sugiharto F. Nursing interventions for symptom management in breast cancer: a systematic review. International Journal of Women's Health, 2026; 18: 573338. https://doi.org/10.2147/IJWH.S573338
15. Keene MR, Heslop IM, Sabesan SS, Glass BD. Complementary and alternative medicine use in cancer: a systematic review. Complementary Therapies in Clinical Practice. 2019; 35: 33-47. https://doi.org/10.1016/j.ctcp.2019.01.004