



# Active Despite Pain: Patient Experiences With Guided Imagery With Relaxation Compared to Planned Rest

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Inadequate pain control remains a threat to the quality of life of patients with cancer. Guided imagery with relaxation (GIR) is a mind-body therapy that has shown promise in reducing chronic pain. This article discusses a qualitative, descriptive study for which the objective was to compare the experiences of patients with cancer with reported pain using GIR compared to planned rest.

## At a Glance

- Patients with cancer who report pain often have ongoing pain despite active pain management strategies.
- Patients with cancer often carry out many activities of daily living in the presence of cancer pain.
- Guided imagery with relaxation, which involves use of the imagination to create mental images to alter pain experiences, may reduce cancer pain.

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After being diagnosed with bone cancer, M.G., a 50-year-old man, completed treatments of cisplatin (Platinol®) and doxorubicin (Adriamycin®). He later presented at the physician's office with back pain. M.G. was taking 15 mg oral morphine (MS Contin®) once daily instead of every four hours. This change resulted from M.G. experiencing drowsiness whenever he took the medication more than once daily for his back pain. In addition, M.G. was also experiencing loss

of appetite, fatigue, difficulty falling asleep at night, and tiredness during the day, and he wanted to know what solutions, if any, existed to address his symptoms.

## Background

The prevalence of pain in patients with cancer has been reported as being as high as 79%, with 46% of patients reporting that pain is very severe (Wells, 2000). Pharmacologic agents do not always elimi-

nate all pain experienced by patients with cancer, and these agents are often associated with significant side effects (e.g., vomiting, dizziness, sedation, respiratory depression) (Benyamin et al., 2008). Inadequate pain control can threaten the quality of life of patients with cancer (Sabino & Mantyh, 2005; Situ, Wang, Shao, & Zhu, 2012). However, guided imagery with relaxation (GIR) is a mind-body therapy that has been shown to reduce chronic pain (Baird & Sands, 2004). The purpose of this pilot study was to compare experiences of patients with cancer using GIR compared to planned rest.

## Mind-Body Treatment

Mind-body therapies include an assortment of treatments, such as meditation, yoga, tai chi, biofeedback, progressive relaxation, hypnosis, and visual imagery. All mind-body therapies are based on the theory of interaction between the mind, brain, body, and behavior (Wahbeh, Elsas, & Oken, 2008). A common factor in these mind-body therapies is relaxation; however, mind-body therapies also require concentrated effort. Electroencephalography, magnetic resonance imagery, and positron-emission tomography tests show changes in cerebral and amygdala activity during guided imagery, indicating a direct physiologic effect of mind-body therapies (Munzert, Zentgraf, Stark, & Vaitl, 2008; Schienle, Schäfer, & Vaitl, 2008; Wagner et al., 2008).

## Guided Imagery With Relaxation

GIR holds promise as a mind-body treatment for decreasing pain in patients with chronic pain (Baird & Sands, 2004; Mannix, Chandurkar, Rybicki, Tusek, &

**TABLE 1. Demographic Characteristics (N = 9)**

Characteristic	n
<b>Comorbidities</b>	
Diabetes	3
Fibromyalgia	1
Heart disease	2
Neuropathy	1
<b>Nonpharmacologic methods</b>	
Acupuncture	1
Completing word puzzle	1
Engaging in self-relaxation	1
Herbs and vitamins	2
Ice	1
Listening to music	1
Massage	1
Reading	1
Rest	1
Seeing a chiropractor	1
Whirlpool	1
<b>Sites of metastasis</b>	
Bone	2
Breast	1
Groin	1
Hip	2
Neck	1
Pelvis	1
<b>Types of cancer</b>	
Bladder	1
Bone	2
Breast	2
Lymphoma	2
Multiple myeloma	1
Prostate	1

Solomon, 1999; Tusek, Church, & Fazio, 1997). The use of GIR to reduce pain is based on the gate control theory of pain that presents the complex and multifaceted nature of pain sensation, transmission, and perception (Melzack & Wall, 1965). GIR may initiate cognitive processes, such as active coping, refocusing attention, and distraction, which lessen the effects of stress. In GIR, the imagination is used to create mental images to alter pain experiences (Kwekkeboom, Kneip, & Pearson, 2003). Kwekkeboom, Wanta, and Bumpus (2008) reported that guided imagery with progressive relaxation may reduce cancer pain, but that individual differences in imaging ability, less positive outcome expectancy, and more concurrent symptoms affected pain improvement in about one-half of the participants.

## Methods

The current study included a combination of descriptive and qualitative meth-

ods to obtain participants' descriptions of their experiences with either GIR or planned rest during a four-week period. Using randomization, participants were assigned to either GIR or planned rest. The participants were asked to record in a journal their daily activities during the study period.

## Setting and Sample

Nine adults (five in the GIR group and four in the planned rest group) undergoing cancer treatments (no surgeries) were randomly assigned to either the group with the GIR intervention or the group with planned rest. All participants were Caucasian, and five were women. Each participant was aged 18 years or older, had a diagnosis of cancer, reported a resting pain rate of at least 4 on a scale of 0 (lowest level of pain) to 10 (highest level of pain), and resided at home. After institutional review board approval, advertisement for study recruitment begun with distribution of flyers at local cancer clinics and in a college electronic newsletter. Three of the authors met potential participants at cancer clinics, at home, or at a place of their choosing to determine eligibility for the study and for consent.

## Procedure and Data Collection

A 13-minute audio recorded imagery scenario was used as the GIR intervention (Baird & Sands, 2004). The audio imagery contains a voice that guides the listener through a process of deep breathing, relaxation, and imagination of a pleasant scene. Participants in both groups were told to find a comfortable place at home or elsewhere where they could sit or lie down and where they would not be disturbed while either listening to the audio imagery or carrying out planned rest. The guided imagery script and audio recording used for this study are available upon request (send the request to adeolam@purdue.edu).

The alternate intervention was planned rest for 13 minutes. Listening to imagery or doing planned rest occurred in the morning and afternoon every day for at least four weeks. All participants recorded in their journals every evening the use of GIR or time spent resting for the study, medication use, activities, and health problems, including pain. The participants reported pain using the 0-10 scale.

## Analyses

Descriptive analyses of the participants' demographic data and numerical pain report were completed. Contents of the participants' journals (symptoms, activities, and comments about the use of either GIR or planned rest) were examined for themes.

All journal texts were reviewed by one of the researchers for accuracy and completeness. MAXQDA<sup>®</sup>, a qualitative data analysis software, was used to organize data. Two researchers reviewed the data separately and then together. Narratives were deconstructed into multiple categories, which were later merged into final themes.

## Results

The mean age of the participants was 63.7 years, and all patients had pain at the beginning of the study (the range of the pain level reported was 2-6 on the scale of 0-10). The participants' reported cancer

**TABLE 2. Comments About Symptoms and Activities Recorded in Participant Journals (N = 9)**

Comment	n <sup>a</sup>
<b>Symptoms</b>	
Fatigue	72
Gastrointestinal symptoms	48
Weakness	33
Chills or feeling cold	28
Pain other than primary pain	23
Sadness or depression	18
Extremity symptoms <sup>b</sup>	16
Sinusitis or infections	11
<b>Activity</b>	
Watching television, reading, or listening to music	214
Home activity	179
Walking	92
Social or spiritual activities	89
Shopping	85
Sleep or rest (different from planned rest)	79
Socializing	54
Work for wages or work activity other than home maintenance or home care	52
Receiving healthcare services	41
Helping others	20
Spiritual	15

<sup>a</sup> Refers to number of comments

<sup>b</sup> Includes numbness, stiffness, and aching

**TABLE 3. Comments About the Interventions From Participants (N = 9)**

Comment	n <sup>a</sup>
<b>Guided imagery with relaxation</b>	
Relaxes	93
Reduces symptoms	30
Did not help	9
<b>Planned rest</b>	
Time used for affirmations	23
Lessened symptoms	18
Did not help	3

<sup>a</sup> Refers to number of comments

types, sites of metastasis, comorbidities, and nonpharmacologic approaches to pain relief are listed in Table 1. Six participants in both groups were already using imagination of pleasant scenes as a way to feel better. At baseline, five of the participants had depression, four had anxiety, and two had nausea. During the study, the participants in both groups experienced symptoms other than pain, including fatigue, gastrointestinal issues, weakness, chills or feeling cold, and sinus issues. Table 2 contains the symptoms participants reported in their journal entries, with fatigue appearing most often (n = 72 comments), as well as the activities reported by the participants in ranked order.

The participants in the GIR group reported pain levels higher than the participants in the planned rest group. Participants in the GIR group reported average pain levels of 4.2 in week 1, 4.1 in week 2, 4.3 in week 3, and 3.6 in week 4, as compared to average pain levels of 2.7, 2.8, 2.9, and 2.5 in those same weeks, respectively, for participants in the planned rest group. In all, 258 responses for pain level scoring were received from all participants during the four-week period, with an average of 64.5 responses per week. The differences in pain levels might be related to possible differences in the nature and stage of the disease process across groups. The participants in both groups performed many activities daily despite reporting pain. Table 3 contains a summary of the comments made by all participants concerning either GIR or planned rest.

The journal comments of the participants in the GIR group revealed two themes: (a) “active in spite of pain” and (b) “sleeping better.” The journal comments of the participants in the planned

rest group revealed the theme of “setting aside time was helpful.”

## Discussion

The participants’ comments demonstrate that either the GIR or planned rest provided opportunities for slowing down and self-reflection. The comments also provide insight into the benefits of taking time to reflect on positive aspects of life rather than focusing on pain that often accompanies a cancer diagnosis. The participants were able to maintain relatively normal daily activities despite moderate levels of pain. The participants also reported that GIR improved sleep. This is similar to Richardson’s (2003) findings that imagery with relaxation helped critically ill adults achieve improved sleep. The ability to sleep better may have helped the participants achieve sustainable energy levels that were adequate for the reported activities. Some findings of the current study were consistent with the findings reported by Kwekkeboom, Hau, Wanta, and Bumpus (2008): Participants reported perceived benefits of active engagement, which may have helped distract participants’ thoughts away from the painful experience. A limitation of the study is the small sample size of nine participants, which occurred because of recruitment and attrition issues. The length of the study (four weeks) may have discouraged some patients from participating.

## Conclusion

The findings from this study may help oncology nurses to understand activity issues, including ongoing pain, and to address fatigue or weakness in patients with cancer. Oncology nurses may need to (a) guide patients toward activities that may be less stressful, (b) assist patients in obtaining resources needed to perform desired activities while maintaining appropriate levels of independence, and (c) encourage patients to use adjuvant, nonpharmacologic therapies, such as guided imagery and relaxation, for sleep deprivation or relaxation to reduce pain, improve sleep, and plan rest periods.

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