

## Pilot Study: Art Therapy Can Reduce Cancer-Related Pain & Anxiety

By Heather Lindsey

**A**rt therapy may reduce a broad spectrum of symptoms related to pain and anxiety in cancer patients, according to a pilot study published in the *Journal of Pain and Symptom Management* (2006;31:162-169).

Lead author Nancy Nainis, MA, ATR, an art therapist at Northwestern Memorial Hospital in Chicago, said that more research is needed, but the results should encourage oncologists who are interested in this type of complementary therapy “to empower patients to find outlets of self-expression.”

Ms. Nainis and her colleagues studied 50 patients from the hospital’s oncology unit over a four-month period. Most had leukemia (29%) or lymphoma (33%), and the rest had a variety of other cancers including breast, gastrointestinal, and gynecologic.

### Types of Art Therapy

Each art therapy session, conducted with registered art therapists, was individualized, with patients offered a choice of subject matter and media, including (in order of the patients’ preference) drawing with pencils or charcoal, stain glass painting, jewelry making with beads, painting with watercolors, clay molding, decorating a wooden frame, making masks, decorating a rain stick, creating a collage, looking at a book of pictures, coloring in a coloring book.

*Participants reported statistically significant improvements in pain, tiredness, depression, anxiety, drowsiness, lack of appetite, well-being and shortness of breath after spending an hour working on art projects of their choice.*

When participants could not use their hands or were not comfortable using the art materials, the therapist would create the art under the direction of patients. They could also opt to look at and discuss photographs.

The sessions ranged from light entertaining distraction to investigating deep psychological issues.

Patients were assessed before and after art therapy with the Edmonton

Symptom Assessment Scale (ESAS).

Participants reported statistically significant improvements in pain, tiredness, depression, anxiety, drowsiness, lack of appetite, well-being and shortness of breath after spending an hour working on art projects of their choice.

### Nausea Didn’t Change

Nausea was the only symptom that did not change as a result of the art therapy session. This is a very powerful symptom that incorporates multiple physical and emotional domains, noted another of the authors, Judith A. Paice, PhD, RN, Director of the Cancer Pain Program at Northwestern.

Added Eduardo Bruera, MD, Professor and Chair of the Department of Symptom Control and Palliative Care at the University of Texas M. D. Anderson Cancer Center: “Nausea, in this population, was quite low to start with and it’s not easy to fix something that is not a big problem.” The lack of impact on nausea may also be due to sample size, he added.

Ms. Nainis noted that because the focus of the pilot study was to see if an art therapy session had any impact on the cancer symptoms experienced by patients, the researchers did not measure the individual project choices of patients relative to the symptoms measured.

### Possible Mechanisms at Work

Art therapy may have a positive impact on patient’s well-being for a number of reasons, Dr. Bruera said.

“One could say that the anecdotal experience is that art therapy can help patients mostly in the emotional area.” Emotional distress such as anxiety and depression have an impact on the way patients express physical distress symptoms such as pain, tiredness, and lack of appetite, and if art therapy makes patients feel a little less anxious and depressed it may have an effect on lowering overall distress.

Patients use various therapeutic interventions for assistance with coping and for symptom control, always according to their preferences, commented Barrie Cassileth, PhD, Chief of the Integrative Medicine Service at Memorial Sloan-Kettering Cancer Center.

“Patients may be drawn to dance therapy, massage, yoga, music, art, or



**Nancy Nainis, MA, ATR (shown preparing art materials to use with patients): “My hope is that this study will open the door to many more studies on how best to use the healing aspects of art.” In addition, she said, the results should encourage oncologists to empower patients to find outlets of self-expression.**

other therapies, and typically will find comfort in this favored activity. When patients self-select a complementary modality, it would be surprising were they not to feel better.”

The act of selecting a complementary therapy and electing to participate in it provides some control during a circumstance where control is extremely difficult for patients to achieve, she added.

Some literature indicates that the creative art-making process may have a neurological impact, Ms. Nainis said. There are hypotheses about the biological reasons that art therapy may affect well-being, but for now there are no clear data.

Still, Dr. Bruera said, whether art therapy works through a specific physiological effect or is simply a distraction probably does not matter too much if the effect is an improvement in the way patients feel.

### Difficult to Study

While art therapy may have its benefits, it is difficult to study, since it cannot be standardized in the same way that other nonpharmacologic therapies can, Dr. Paice explained.

“Some patients find comfort in painting or drawing, others in sculpting or creating an object. We standardized the instructions and the timing, but allowed patients to select the type of art they wished to create.”

Additionally, Dr. Bruera pointed out, this type of research makes it difficult to devise an appropriate blinding of the intervention to determine if particular features of the therapy are having an impact on certain aspects of the disease instead of having a nonspecific benefit.

Both the nurse and patient know that the art therapy is being given, so researchers are not able to compare outcomes with a control group. In addition, he said, in this type of study design, patients know that quality of life is being evaluated, most likely biasing data.

The intervention may also have a placebo effect, and determining whether the art therapy has an inherent value or if patients were temporarily distracted from emotional distress is difficult.

If art therapy has a specific effect on mood, it might be more durable than if it were simply a distraction, Dr. Bruera said. “It would be nice to know if patients felt better a day or two after the intervention.”

### Future Research

“We need to continue to investigate if these effects are sustained over time, how many sessions are ideal, what projects are most helpful for which symptoms, as well as whether doing is more effective than looking at art,” said Ms. Nainis.

More research is also needed to determine whether shorter interventions—for example, a half-hour rather than an hour—might benefit patients, Dr. Bruera said. Shorter sessions would allow for the treatment of more patients.

Biological changes that occur as a result of art therapy need to be addressed as well, Dr. Paice said.

“We also need to get double-blind studies with control groups if we want to have credibility in the scientific community,” Ms. Nainis said. “My hope is that this study will open the door to many more studies on how best to use the healing aspects of art.”