

Original Research

## Therapeutic Effects: The Integration of Creative Arts Therapy in Palliative Care

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## Abstract

The University of Colorado Hospital (UCH) implemented a Creative Arts Therapy (CAT) program offering CAT to hospitalized patients as a component of comprehensive palliative care (PC) services. The objective of this pilot program evaluation study was to evaluate short-term effects of CAT on patient symptoms and patient/family perceptions regarding their experience. The sample included adult patients hospitalized in an academic medical center who were seen by the Palliative Care Consult Service (PCCS) between October 1, 2016, and June 1, 2017. The program evaluation consisted of quantitative and qualitative components, including a self-report of symptoms using the Edmonton Symptom Assessment Scale (ESAS) and semi-structured patient and family member interviews. During the study period, there were 366 total CAT patient encounters. Twelve patients completed pre/post-CAT session ESAS. Symptom scores showed a trend in improvement pre- to post-intervention on a 0-10 scale for pain (4.8 to 4.3; p=0.41); depression (2.17 to 1.42; p=0.25); anxiety (2.7 to 2.4; p=0.70); appetite (4.92 to 4.09; p=0.41); and well-being (5.8 to 4.8; p=0.38). Forty patients and family members completed semi-structured interviews. Qualitative analysis revealed the overarching theme of improved quality of life through emotionally therapeutic effects, with sub-themes of non-medical relationships, distraction, family engagement, and personalized care. This pilot PC-CAT program evaluation supports the need for further studies to confirm the association with positive trends in patient-reported pain, depression, anxiety, appetite, and well-being. The evaluation also provides qualitative themes of improved quality of life for patients and family members through emotionally therapeutic effects.

## Keywords

Palliative care; creative arts therapy; art therapy; music therapy

## 1. Introduction

Serious illness can cause severe suffering that is physical in nature interconnected with psychosocial, emotional, and existential suffering. Creative arts therapy (CAT) has been used as a form of therapy that uses creative expression to help individual's process emotions that are associated with serious illness, providing comfort, healing, and hope to patients and families [1]. CAT requires the implementation of an expressive intervention by a board-certified music therapist or registered art therapist, the presence of a therapeutic process, and the use of personally tailored creative arts experiences [2]. The therapeutic processes of such expressive therapies are based on the recognition that a patient's deepest thoughts and feelings can be expressed more easily through visual and/or auditory media [3-5]. Existing research suggests that CAT may decrease suffering in patients with cancer by improving depression, anxiety, pain, fatigue, and quality of life [2, 6]. While these results are promising, there is a lack of rigorous studies within CAT research [2, 7].

At the University of Colorado Hospital (UCH), the palliative care consult service (PCCS) is composed of an interdisciplinary team of physicians, advanced practice providers, social workers, chaplains, a care manager, and volunteers. Through philanthropic support, UCH PCCS implemented a CAT program in September 2016, offering CAT to hospitalized patients as a component of comprehensive palliative care services. The PCCS was expanded to include a registered art therapist and board-certified music therapist who provide additional support to patients and their loved ones, enhancing existential exploration, emotional expression and meaning. The purpose of this program evaluation study was to evaluate the impact of CAT integrated with the PCCS, with a goal of informing and enhancing future service delivery to ensure that these integrated CAT services were effectively meeting patient needs and program goals.

## **2. Materials and Methods**

The study was approved by the University of Colorado Institutional Review Board.

### ***2.1 Study Design***

A pilot program evaluation study was completed to assess the integration of a CAT program within a comprehensive PCCS. Outcomes of this study focused on the evaluation of: 1) the short-term effects of a CAT session on symptoms commonly experienced by PCCS patients; and 2) the patient and family perspectives on their experiences with CAT. The study was approved by the University of Colorado Institutional Review Board.

### ***2.2 Participants and Setting***

Eligible patients were 18 years or older with serious illness who had been admitted to UCH, as well as patients' family members, receiving ongoing care by the UCH PCCS in Aurora, Colorado between October 1, 2016, and June 1, 2017. CAT was made available to all PCCS patients. Patients voluntarily agreed to participate and could discontinue CAT at any time. Patients were excluded if they chose not to participate or were unable to verbalize their desire to participate in a CAT session.

### ***2.3 Intervention***

The intervention aimed to engage patients with serious illness by expressing themselves through CAT. Patients were offered a CAT session by the music therapist, art therapist or both. The CAT session involved 1 session (average session lasted 1-2 hours) or 2 sessions if both music and art therapy were chosen. All sessions were facilitated by the board-certified music therapist and/or registered art therapist, depending on which type of therapy the patient and family chose.

Sessions were tailored to the participants, and goals of the sessions were mutually established between therapist and the patient/family. The therapeutic goals of the session included: legacy building, relaxation, empowerment, reminiscence, expression, and fostering relationships. Various musical and/or art materials were employed as guided by patient and family preferences, health circumstances, and patients' goals. Music therapy interventions (Figure 1) used during the sessions included:

- listening to patient-preferred music,

- playing an instrument and/or singing,
- music-led imagery and/or relaxation,
- music discussion,
- music-facilitated reminiscence,
- lyric analysis,
- legacy building through recording, soundtrack creation, or songwriting, and
- therapeutic conversation.

Art therapy interventions used during the sessions included:

- drawing,
- painting,
- textiles,
- sculpture,
- photography,
- looking at and evaluating other people's artwork, and
- therapeutic conversation.



**Figure 1**

### **3. Data Collection/Analysis**

#### **3.1 Quantitative Outcomes**

The Edmonton Symptom Assessment Scale (ESAS) was used to assess 10 symptoms pre- and post-CAT sessions [8]. The ESAS is a numeric rating scales (NRS) ranging from 0 (no symptom) to 10 (worst possible) [8]. The research assistant obtained ESAS from the patient pre- and post-CAT encounters. Patients could decline completing the ESAS. The patient's pre- and post-CAT ESAS scores were analyzed using paired t-tests to test for any significant differences.

#### **3.2 Qualitative Outcomes**

Within 1 day of the post-CAT session, the patient and/or family member completed a 3-question, semi-structured interview. The research assistant conducted the interview in the

patient's hospital room (see Appendix A for interview questions). Using an inductive approach, iterative qualitative data analysis was performed to form a summative, team-based thematic analysis. The team met to discuss, confirm, modify, and synthesize the dominant themes. The dominant themes were grouped into broader categories through conceptual mapping until consensus among the team was achieved. The outcome of analysis was the identification of dominant themes related to patient and family experiences of the CAT session.

#### 4. Results

##### 4.1 Sample

During the study period, there were 366 CAT patient encounters (initial and follow-up). For the quantitative outcomes, a total of 12 patients completed both pre- and post-CAT ESAS. For the qualitative outcomes, a total of 40 patients and family members were interviewed post-CAT session. The sample of 12 for the ESAS outcomes was lower than the number of participants interviewed because of: 1) patients declining to complete the ESAS, 2) practical challenges in obtaining a post-CAT session ESAS, and 3) only patients, not family, being allowed to complete the ESAS (Table 1).

**Table 1** Outcomes from Edmonton Symptom Assessment Scale (ESAS)\*.

	Pre	Post	P Value	T Score
<b>Pain</b>	4.83	4.33	0.41	0.856
<b>Shortness of breath</b>	1.92	2.67	0.18	-1.431
<b>Constipation</b>	1.92	1.92	1.00	0.00
<b>Tiredness</b>	5.08	5.83	0.19	-1.393
<b>Nausea</b>	2.17	2.75	0.11	-1.735
<b>Depression</b>	2.17	1.42	0.25	1.216
<b>Anxiety</b>	2.67	2.42	0.70	0.397
<b>Drowsiness</b>	3.17	4.08	0.40	-0.875
<b>Appetite</b>	4.92	4.09	0.41	0.858
<b>Well-being</b>	5.83	4.82	0.38	0.927

\* 0-10 scales with 0 representing no symptoms and 10 the worst possible symptom severity.

##### 4.2 Quantitative Outcomes

CAT integrated with a hospital-based PCCS was associated with a trend in improved patient reported outcomes of pain, depression, anxiety, appetite, and well-being. Symptom scores showed a trend in improvement from pre-intervention to post-intervention (Table 1) on a 0-10 scale for pain (4.8 to 4.3; p=0.41); depression (2.17 to 1.42; p=0.25); anxiety (2.7 to 2.4; p=0.70); appetite (4.92 to 4.09; p=0.41); and well-being (5.8 to 4.8; p=0.38). Symptom scores for shortness of breath, constipation, tiredness, nausea, and drowsiness did not show a positive trend (lowering of symptom severity) pre- to post-intervention.

#### **4.3 Qualitative Outcomes**

Qualitative analysis revealed a dominant theme of improved quality of life through emotionally therapeutic effects. Ninety-five percent of respondents highlighted quality-of-life benefits. Ninety percent of participants reported that a visit from a music or art therapist would be helpful to other patients and families. Subthemes of emotionally therapeutic effects associated with CAT sessions were: 1) engaging in a non-medical relationship; 2) providing distraction while hospitalized; 3) facilitating family engagement; and 4) personalizing care.

#### **4.4 Engaging in a Non-Medical Relationship**

Patients described the relationship developed with the music and/or art therapist positively impacted their experience during their hospitalization. These positive impacts are depicted in the following verbatim quotes:

- *I talked about my feelings, which I appreciated because I haven't had this experience with other providers in the hospital.*
- *Everything about it was helpful. It relaxed my mind. Talking to both of them was very helpful and therapeutic.*
- *It was great to talk to someone who wasn't totally focused on the medical aspect.*

#### **4.5 Providing Distraction While Hospitalized**

The patients described CAT as providing distraction from their illness, which are represented by the following verbatim quotes:

- *It was so meaningful. It reminded me that life goes on and there's still a lot of beauty in life. I had been so confined to this hospital room and felt like my whole life was restricted to just what was going on in the hospital. This reminded me of life outside.*
- *It's therapeutic and takes your mind off being in the hospital and being sick.*
- *I think it's very important to give patients something to do besides focusing on their pain.*

#### **4.6 Personalizing Care**

Patients appreciated the opportunity to have options and choice between music and/or art therapy, which provided personalized care. This personalization is illustrated in the following verbatim quotes:

- *She meets you where you're at, Whether that's a few songs today or slower, just one song.*
- *I liked the art; it was very helpful and quiet. I'm a quiet person, I like things peaceful.*
- *It was wonderful. I requested some tunes, like James Taylor -- the songs we had at our wedding -- she played and I sang along. We talked about the reason I like those songs and the memories associated with them*
- *Being creative made me feel alive.*
- *I was prescribed an antidepressant because I got really depressed with all the changes that chemo did to my body, but what really got me out of my depression was art.*

Five percent of participants did not describe a positive experience from CAT. The participants responses were most commonly described either as “*CAT not being for everyone*” or “*needing to be in the right mindset in order to participate.*”

## 5. Discussion

CAT integrated within a hospital-based PCCS was associated with a trend in improving both patient-reported outcomes of pain, depression, anxiety, appetite, and well-being and patient/family perceptions on quality of life. These results support prior findings of the benefits of CAT [2, 7, 9-12]. However, it should be noted that systematic reviews of music therapy [10 11] and art therapy [12] have mixed results on outcomes across a variety of domains. Based on the National Consensus Project for Quality Palliative Care [13], well-being for patients living with serious illness is impacted by physiological, psychological, social and spiritual aspects of suffering. Interventions that may lessen suffering in any of these domains (e.g., positive trends in pain, depression, and anxiety) through emotional expression facilitated by CAT have the ability to contribute to improvement in overall well-being.

There remains, however, a lack of rigorous studies within CAT research defining the mechanisms with a need for well-designed randomized controlled trials that characterize features of CAT interventions such as optimal frequency, duration, and modality [2]. CAT can have a wide range of number of sessions [9]. For our study, the number of CAT sessions with each individual patient/family included 1-2 sessions, which is practical in the hospital setting. Despite this low number of sessions, the results remained positive.

Perhaps the most impactful information from this study is the effect of CAT on emotional expression, which has not been well studied previously. The qualitative findings provide insight from patient/family perspectives that CAT interventions are beneficial to quality of life, primarily through emotionally therapeutic effects.

This study has several limitations. The first was the small sample size that is consistent with an unfunded program evaluation. Larger sample sizes should be incorporated for more valid and reliable conclusions in future studies. Second, recruitment of the inpatient palliative population was difficult. Patients were not always available; they might be sleeping, off the unit, or discharged prior to having completed post-CAT session assessments. These factors resulted in missing data, particularly for ESAS outcomes. Third, we did not randomize patients, therefore there was a lack of a comparison group. Therefore, the findings are not generalizable due to the small sample size, the lack of randomization, and the fact that the study was completed at one geographic location.

## 6. Conclusion

This pilot program evaluation supports the integration of CAT within comprehensive palliative care services for patients and families to provide emotionally therapeutic benefits for quality of life. The findings additionally support the need to confirm the association of CAT with positive trends in patient-reported pain, depression, anxiety, appetite, and well-being with randomized controlled trials. More research with a larger study sample and assessment of optimal CAT dosing is needed to further evaluate the therapeutic effects and efficacy of CAT integrated with palliative care teams for people living with serious illness [1, 2, 6, 9, 10].

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## Author Contributions

All authors made substantial contributions to the design of the work or the acquisition, analysis, or interpretation of the data; and/or participated in revising it critically; AND provided final approval of the version to be published; and agree to be accountable for the work.

## Competing Interests

The authors have declared that no competing interests exist.

## Additional Materials

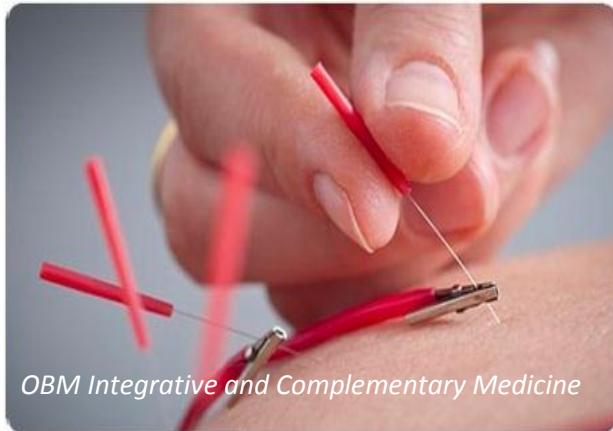
The following additional materials are uploaded at the page of this paper.

1. Appendix A: Creative arts therapy qualitative questions.

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