

Evaluating quality of life and symptom relief for adult acute inpatient leukemia patients receiving integrative medicine therapies

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1 Background

- Leukemia represents 3.6% of all new cancer cases in the U.S. as of 2016, making it the 10th most common diagnosed cancer⁴. Treatment for leukemia is often emergent and aggressive, requiring prolonged hospitalizations and intensive follow up⁵.
- Compared with treatment for other cancers, patients receiving treatment for hematologic cancers such as leukemia exhibit higher levels of emotional and mental distress^{2,5} with an increased burden on psychosocial roles² and a well-documented cancer symptom cluster of fatigue, pain and sleep disturbances³.
- These symptoms and psychosocial consequences are often difficult to manage with conventional medical modalities and interventions alone¹.

2 Objectives

- To determine whether integrative medicine treatments improve patient assessment of quality of life
- To measure the effects of integrative medicine treatments on patient-reported pain scores
- To identify the role integrative medicine can play in multimodal treatment of leukemia symptoms

3 Methods

Phase One: Qualitative data collection

- FACT-Leu questionnaire, a quality of life survey focusing specifically on leukemia symptoms
- Pre-test: prior to integrative medicine intervention
- Post-test: after at least three integrative medicine interventions

Phase Two: Quantitative data collection

- Variables related to cancer cluster symptoms, including pain scores, will be compared to matched controls retrospectively
- All data collected via custom-built REDCap data collection tool

FACT-Leu (Version 4)

Below is a list of statements that other people with your illness have said are important. Please circle or mark one number per line to indicate your response as it applies to the **past 7 days**.

		Not at all	A little bit	Some-what	Quite a bit	Very much
PHYSICAL WELL-BEING						
GP1	I have a lack of energy	0	1	2	3	4
GP2	I have nausea	0	1	2	3	4
GP3	Because of my physical condition, I have trouble meeting the needs of my family	0	1	2	3	4
GP4	I have pain	0	1	2	3	4
GP5	I am bothered by side effects of treatment	0	1	2	3	4
GP6	I feel ill	0	1	2	3	4
GP7	I am forced to spend time in bed	0	1	2	3	4
SOCIAL/FAMILY WELL-BEING						
GS1	I feel close to my friends	0	1	2	3	4
GS2	I get emotional support from my family	0	1	2	3	4
GS3	I get support from my friends	0	1	2	3	4
GS4	My family has accepted my illness	0	1	2	3	4
GS5	I am satisfied with family communication about my illness	0	1	2	3	4
GS6	I feel close to my partner (or the person who is my main support)	0	1	2	3	4
Regardless of your current level of sexual activity, please answer the following question. If you prefer not to answer it, please mark this box <input type="checkbox"/> and go to the next section.						
GS7	I am satisfied with my sex life	0	1	2	3	4

4 Results

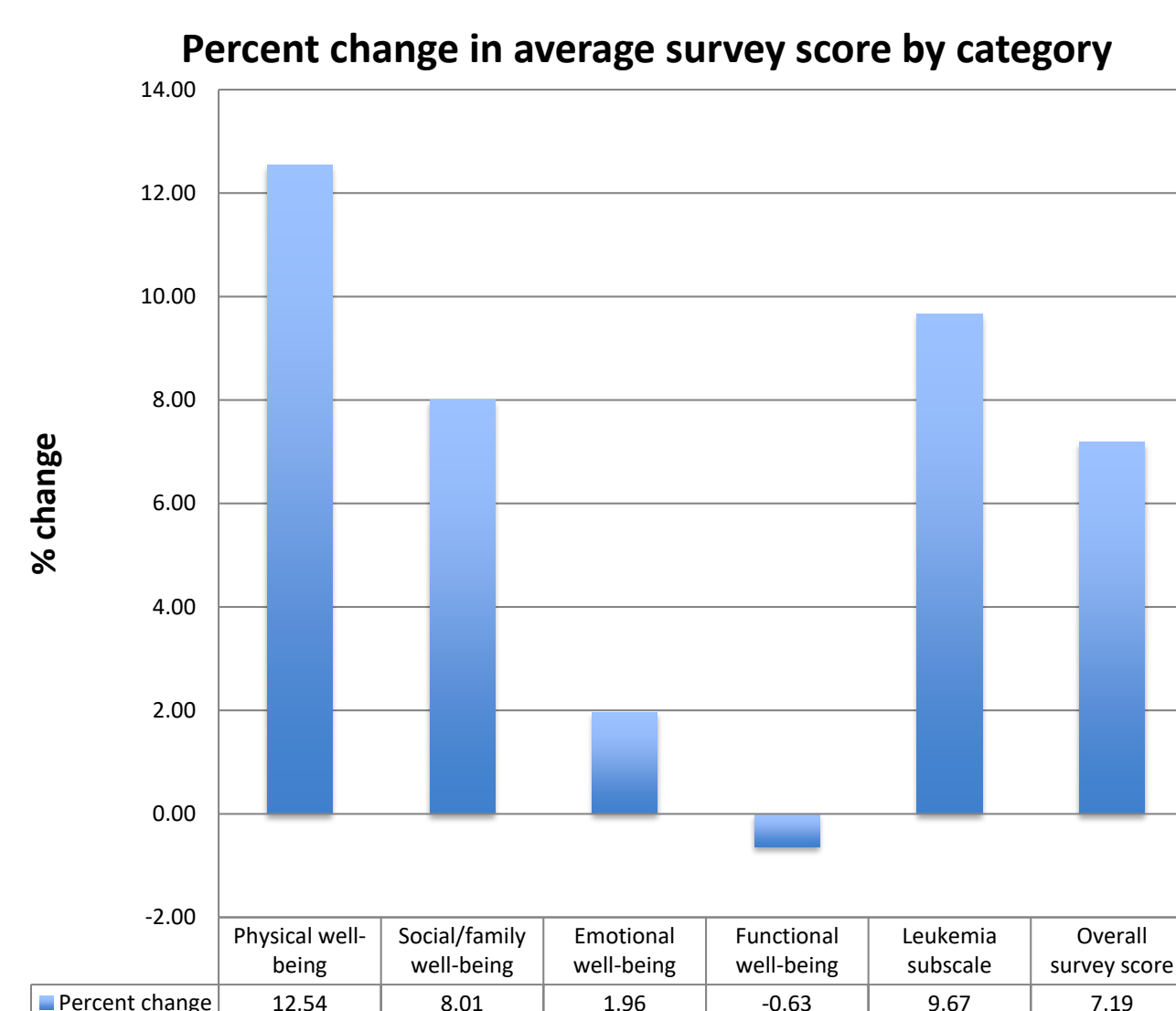


Figure 2. Percent change in average quality of life scores compared before and after integrative medicine therapy

Phase One of the project is still in the data collection phase, with 36 participants recruited. Twenty-three patients have completed pre- and post-surveys. Preliminary results include:

- 12.5% increase** in physical well-being score
- 8% increase** in social/family well-being score
- 2% increase** in emotional well-being score
- 0.6% decrease** in functional well-being score
- 9.7% increase** in leukemia subscale score
- 7.2% increase** in overall FACT-Leu score

5 Conclusions

At this point in the project, preliminary findings regarding quality of life and symptom relief from integrative medicine therapies are:

- Integrative medicine therapies improve patients' perception of their physical well-being (e.g. energy level, nausea, pain, side effects)
- Integrative medicine therapies improve patients' perception of leukemia-specific cancer cluster symptoms (e.g. fever, chills, fatigue, bleeding, risk of infection)
- Integrative medicine therapies improve patients' perception of their overall quality of life

6 Future Directions

- Continue to recruit patients for Phase One qualitative study
- Determine whether individual's chemotherapy treatments impact and possibly explain the decrease in functional well-being scores
- Begin Phase Two – a quantitative data comparison of cancer cluster symptoms with matched controls
- Identify sustainable ways to offer integrative medicine on inpatient leukemia units (e.g. floor nurse education; hiring specially trained integrative medicine nurses)

7 References

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