Exploring the symptomatology of adults with acute leukemia

Tara A. Albrecht, PhD, ACNP-BC, RN
Assistant Professor
Susan White Holsworth Palliative Care Scholar
Virginia Commonwealth University
School of Nursing
Massey Cancer Center



Disclosures

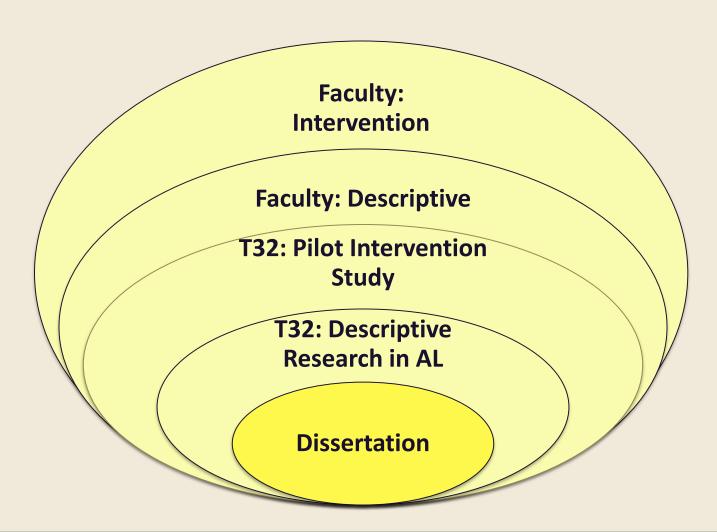
No disclosures or conflicts of interest to report

"...unless the direction of science is guided by a consciously ethical motivation, especially compassion, its effects may fail to bring benefit. They may indeed cause great harm."

~Dalai Lama

Introduction





A Supportive Care Study for Women with Advanced Ovarian Cancer

Purpose:

 To examine the feasibility as well as the effects of the combined intervention of flaxseed oil, fasting, caffeine, and exercise on OC tumor growth

Methods:

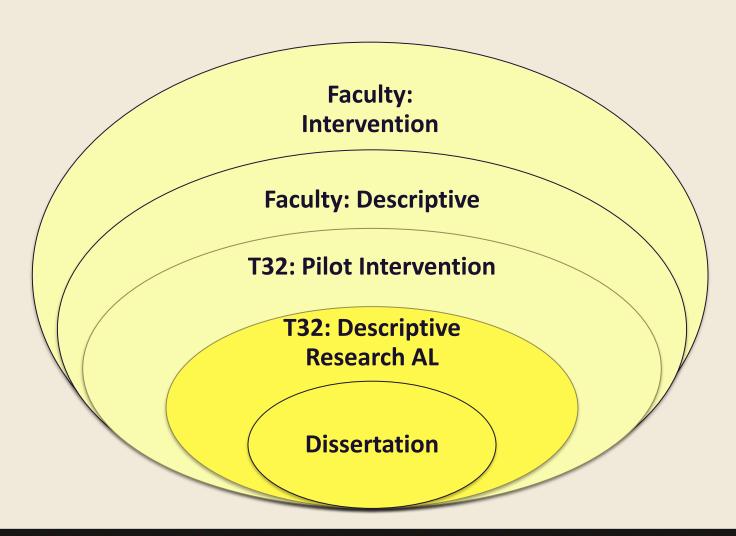
Quasi-experimental intervention

Findings:

- Efficacy regarding the combined intervention remain unanswered.
- Actively participating in physical activity while receiving treatment may improve: Physical symptoms (peripheral neuropathy),
 Psychological consequences (mood, stress), HRQoL
- Patients may be fearful about participating in physical activity and thus may need support and encouragement.

Funding: Foundation for Cancer Research awarded through a grant from the University of Virginia Cancer Center and by funds from the International Cancer Alliance for Research and Education (ICARE)

Commonwealth



Acute Leukemia

- Acute Leukemia (AL)
 - Requires immediate and aggressive treatment (Pulte et al 2010; Radaelli, et al. 2004)
 - Long periods of hospitalization (Dohner, et al, 2010; Estey & Dohner, 2006)
 - 60-90% achieve complete remission (Burnett, 2005)
 - Disease relapse occurs in majority of patients within 3 years (Dohner et al, 2010; Chevallier et al, 2011)
 - 5-year survival rate: (Howlander et al, 2012)
 - Acute Myloid Leukemia(AML) = 23.9 %
 - Acute Lymphocytic Leukemia(ALL) = 65.2 %

Consequences of Treatment

- Patients with AL:
 - often experience numerous symptoms (Manitta, et al, 2011)
 - treatment associated complications lead to longer hospitalizations (Redealli et a, 2004; Efficacer et al, 2007)
 - high risk of negative consequences of treatment without any benefit (Redealli et a, 2004; Efficacer et al, 2007)

Symptom Management & Psychosocial needs in Patients with Acute Leukemia

Purpose:

 The purpose of this preliminary study was to better describe the symptom experience of patients with AL across the disease trajectory.

Method:

Descriptive longitudinal convergent mixed methods

Findings:

- Patients with AL experience multiple concurrent symptoms, distress and decreased HRQoL during treatment
- Long hospitalization and facing the unknown is difficult
- Multidimensional symptom assessment is important

Funding:

STTI Small Grant: June 2012-May 2013

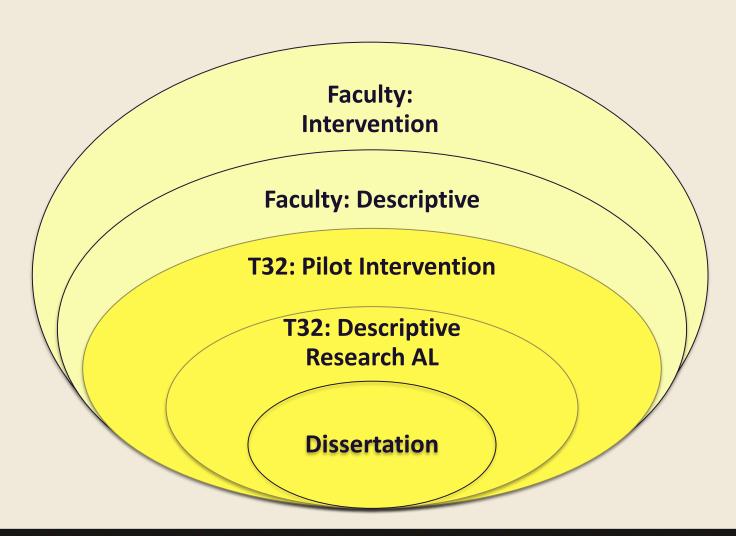
irginia

T32NR011972 Interdisciplinary Training of Nurse Scientists in Cancer Survivorship Research 2012-2013

Albrecht, T.A, Boyiadzis, M., Elswick, R.K., Starkweather, A., Rosenzweig, M. (accepted). Symptom Management and Psychosocial Needs of Adults with Acute Myeloid Leukemia During Induction Treatment. *Cancer Nursing*.

Albrecht, T.A., Rosenzweig, M. (2013) Distress in patients with acute leukemia: A concept analysis. Cancer Nursing. 37(3), 218-226.

Albrecht, T.A. (2014). Physiological and psychological symptoms of adults with acute leukemia: An integrative literature review. *Oncology Nursing Forum.* 51(3), 286-295.



Systematic Intervention to Ease Distress in Patients with AL

Purpose:

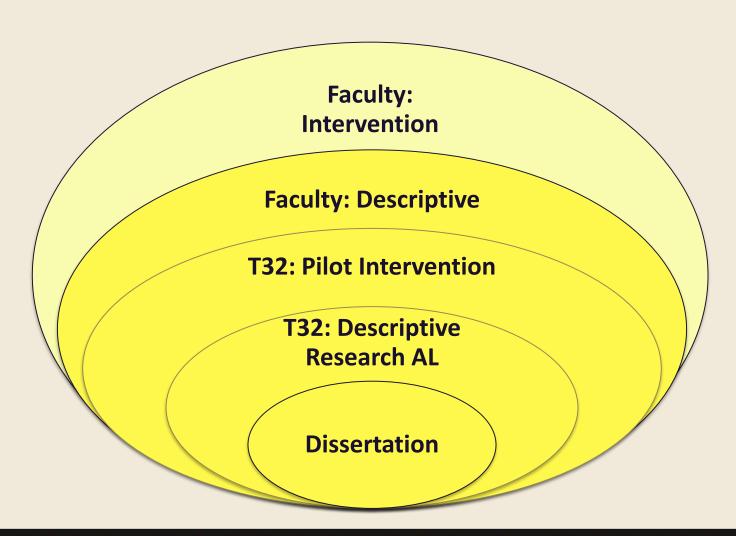
 To explore the feasibility and potential efficacy of providing STARTED in patients hospitalized for treatment of AL

Methods:

 Longitudinal quasi-experimental before (using historical control study) and after intervention pilot study

Findings:

 There may be important benefits to using an interdisciplinary team to manage symptoms and distress in adults with AL



Exploring Relationships between Immunologic Profiles, Symptoms and Distress in AML

Purpose:

 To explore the relationships among PRO, immunologic and cytogenetic profiles in AML during induction chemotherapy.

Methods:

Longitudinal descriptive study

Findings:

- Currently in data analysis. Preliminary findings:
 - Patients experience multiple co-occurring symptoms
 - Pain, Fatigue, Sleep Disturbance, Anxiety and Distress
 - Different cytogenetic patterns may predict certain symptoms
 - Pro-inflammatory cytokines were found to be present and may predict certain symptoms

Exploring the Relationships between Symptoms, Stress and Salivary Proteins in Family Members of Adults AML

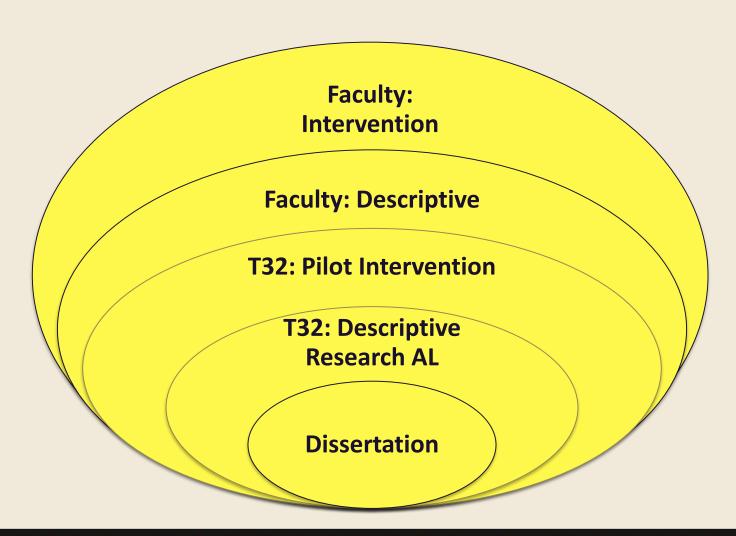
 Examine the relationships among symptoms, stress, and biological correlates of stress in primary family member of adults undergoing treatment for AML

Methods:

Longitudinal descriptive exploratory design

Findings:

- Currently in data analysis. Preliminary findings:
 - Show family members experience moderate to severe distress, anxiety, depression, sadness, fatigue and disturbed sleep.
 - Highest symptom burden found at week 4
 - While family needs were met at week 1 of hospitalization, family members reported needs were more often not met in the following 4-weeks of treatment.



Physical Activity as a Self-Management Approach to Improve Health Outcomes in AML

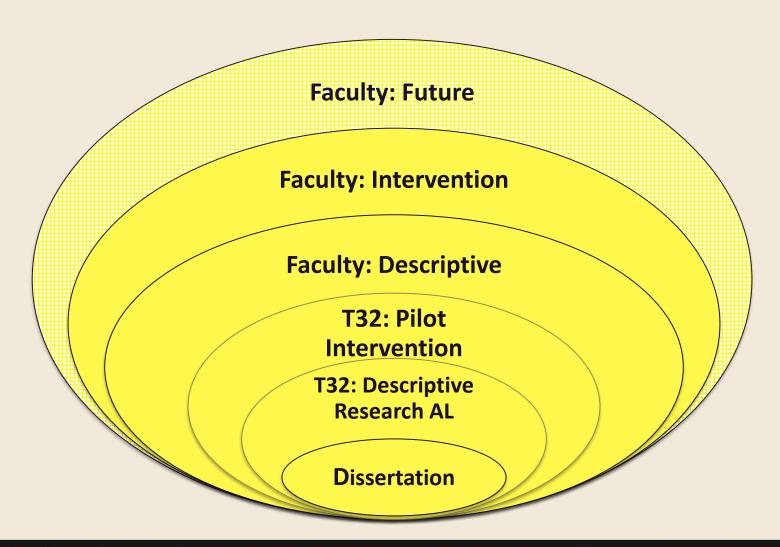
Purpose:

 Determine the feasibility and preliminary efficacy of the BSMA program involving PA in patients receiving consolidation treatment for AML.

Methods:

Quasi-experimental cohort control study design

Findings: pending



Acknowledgements

Thank you:

Ann Gill Taylor, EdD, RN, FAAN

Margaret Rosenzweig, PhD, FNP-C, AOCNP,

FAAN

Michael Boyiadzis, MD, MHSc

Angela Starkweather, PhD, ACNP-BC, FAAN

Egidio Del Fabbro, MD

Victoria Menzies, PhD, RN, PMHCNS-BC

Funding Acknowledgements

- Massey Cancer Center, Cancer Prevention and Control Pilot Project Program
- Massey Cancer Center Cancer Prevention and Control Research Development Program
- VCU School of Nursing Intramural Grant
- Sigma Theta Tau International Small Grants
- NINR T32 NRO10072 Interdisciplinary Training of Nurse Scientists in Cancer Survivorship

Questions?

Thank you.

"We have to ask ourselves whether medicine is to remain a humanitarian and respected profession or a new but depersonalized science in the service of prolonging life rather than diminishing human suffering."

~Elisabeth Kubler Ross

References

Albrecht, T.A, Boyiadzis, M., Elswick, R.K., Starkweather, A., Rosenzweig, M. (in press). Symptom Management and Psychosocial Needs of Adults with Acute Myeloid Leukemia During Induction Treatment. *Cancer Nursing*.

Albrecht, T.A. (2014). Physiological and psychological symptoms of adults with acute leukemia: An integrative literature review. *Oncology Nursing Forum.* 51(3), 286-295.

Albrecht, T.A., Rosenzweig, M. (2013) Distress in patients with acute leukemia: A concept analysis. Cancer Nursing. 37(3), 218-226.

Albrecht, T., Taylor, A.G. (2013). No stone left unturned: Challenges encountered during recruitment of women with advanced ovarian cancer for a phase I study. *Applied Nursing Research*. 26(4), 245-250.

Albrecht, T., Anderson, J., Taylor, P., Jones, R., Bourguignon, C., Taylor, A.G. (2012) A complementary care study combining flaxseed oil, caffeine, fasting and exercise in women diagnosed with advanced ovarian cancer: Findings from a case study. *Holistic Nursing Practice*, 26(6): 308-316.

Albrecht, T., Taylor, A.G. (2012) Physical activity in patients with advanced cancer: A systematic review of the literature. *Clinical Journal of Oncology Nursing*, 16(3): 293-300.

Brucker, et al (2005). General population and cancer patient norms for the Functional Assessment of Cancer Therapy-General (FACT-G). Evaluation Health Professionals. 28: 192-211.

Cleeland CS, Reyes-Gibby CC. When is it justified to treat symptoms? Measuring symptom burden. *Oncology (Williston Park)*. 2002;16(9 Suppl 10):64–70.

Cleeland CS, Bennett GJ, Dantzer R, et al. Are the symptoms of cancer and cancer treatment due to a shared biologic mechanism? A cytokine-immunologic model of cancer symptoms. *Cancer*. 2003;97(11):2919-2925. doi:10.1002/cncr.11382.

Council NR. Cancer Care for the Whole Patient: Meeting the Psychosocial Health Needs. (Adler N, Page A, eds.). Washington, DC: The National Academies Press; 2008.

Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd ed.). Los Angeles: SAGE Publications.

Efficace F, Novik A, Vignetti M, Mandelli F, Cleeland CS. Health-related quality of life and symptom assessment in clinical research of patients with hematologic malignancies: where are we now and where do we go from here? *Haematologica*. 2007;92(12):1596–8.

References

Epelman, C. L. (2013). The adolescent and young adult with cancer: state of the art - psychosocial aspects. *Current Oncology Reports*, 15(4), 325–31.

Estey E, Dohner H. Acute myeloid leukaemia. Lancet. 2006;368(9550):1894-1907.

Gramatges, M. M., & Rabin, K. R. (2013). The adolescent and young adult with cancer: state of the art-- acute leukemias. *Current Oncology Reports*, 15(4), 317–24. Manitta, V., Zordan, R., Cole-Sinclair, M., Nandurkar, H., & Philip, J. (2011). The symptom burden of patients with hematological malignancy: A cross-sectional observational study. *Journal of Pain and Symptom Management*, Persson, L., Larsson, G., Ohlsson, O., & Hallberg, I. R. (2001). Acute leukaemia or highly malignant lymphoma patients' quality of life over two years: A pilot study. *European Journal of Cancer Care*, 10(1), 36-47.

National Comprehensive Cancer Network. *NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines): Distress Management*. 2012 v3.2012. ents with hematological malignancy: A cross-sectional observational study. *Journal of Pain and Symptom Management*. 2011;42(3):432–442.

Reiche E, Nunes S, Morimoto H. Stress, depression, the immune system, and cancer. Lancet Oncol. 2004;5:617-625.

Redaelli A, Stephens JM, Brandt S, Botteman MF, Pashos CL. Short and long-term effects of acute myeloid leukemia on patient health-related quality of life. *Cancer Treatment Reviews*. 2004;30(1):103–117.

Rowland, J.H. Development stage and adaptation: adult model. In: Holland JC, Rowland JH, eds. Handbook of Psychooncology. New York, NY: Oxford Press. 1990; Chapter 3: 25-43

Smith, A. W., Bellizzi, K. M., Keegan, T. H. M., Zebrack, B., Chen, V. W., Neale, A. V., ... Lynch, C. F. (2013). Health-related quality of life of adolescent and young adult patients with cancer in the United States: the Adolescent and Young Adult Health Outcomes and Patient Experience study. *Journal of Clinical Oncology*, 31(17), 2136–45.

Starkweather AR, Lyon DE, Elswick RK, Montpetit AJ, Conley Y, McCain NL. A conceptual model of psychoneurological symptom cluster variation in women with breast cancer: Bringing nursing research to personalized medicine. *Curr Pharmacogenomics Pers Med.* 2013;11:224-230.

Tashakkori, A., & Teddlie, C. (2003). *Handbook of mixed methods in social & behavioral sciences*. Thousand Oaks, Calif: SAGE Publications.

Von Gunten CF. Interventions to manage symptoms at the end of life. *Journal of Palliative Medicine*. 2005;8 Suppl 1(S1):S88–94.