CAPE FEAR VALLEY HEALTH

A PILOT STUDY:

The Effect of Healing Touch on Anxiety, Stress, Pain, Pain Medication Usage, and Physiological Measures in Hospitalized Sickle Cell Disease Adults Experiencing Vaso-Occlusive Pain Episodes

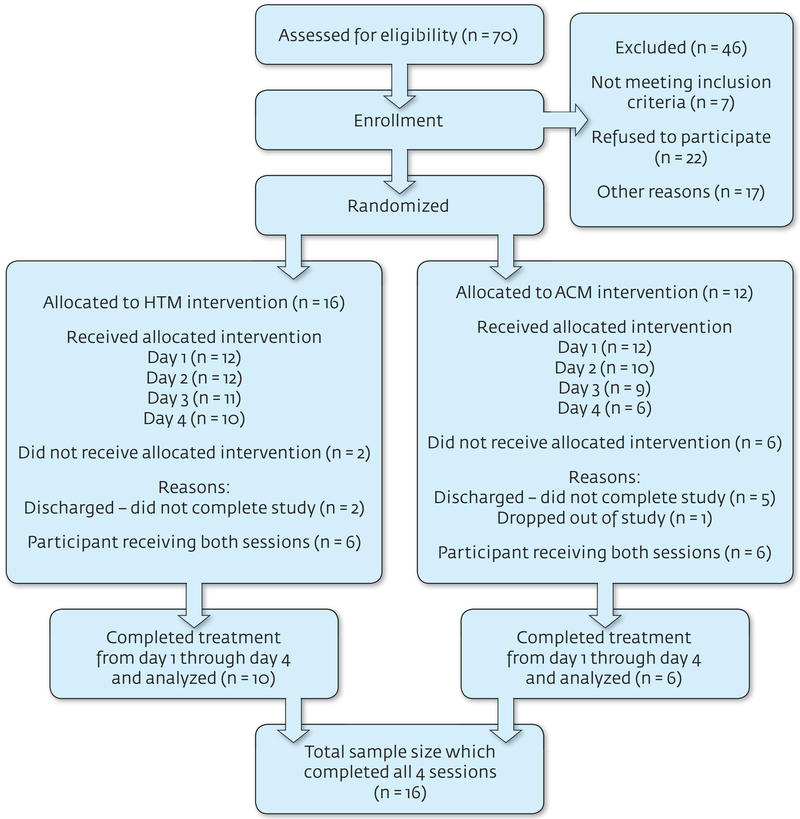
LINDA THOMAS PHD, RN-BC, CCRN, CHTP

BACKGROUND

Sickle cell disease (SCD), a common genetic blood disorder affecting primarily African-Americans (Edwards, Scales, Loughlin, Bennett, Harris-Peterson, et al., 2005) causes a vaso-occlusive pain episode (VOPE) affecting both men and women across their life span. Both physical and psychological stress has been reported to precipitate a VOPE (Anie & Green, 2006) placing them at risk for early death. In fact, 78% of the patients who die from SCD do so during a VOPE.

Healing Touch (HT), a complementary therapy, has been shown to decrease anxiety, stress, and pain in other patient populations such as cancer, orthopedic, and post-cardiac surgery patients, but sickle cell pain has not been studied. The outcome variables were measured, while controlling for the music and presence. Purpose of this parallel-group randomized control trial (RCT) was to determine the effectiveness of Healing Touch on anxiety, stress, pain, pain medication usage, and selected physiological measures of hospitalized SCD adults experiencing a VOPE.

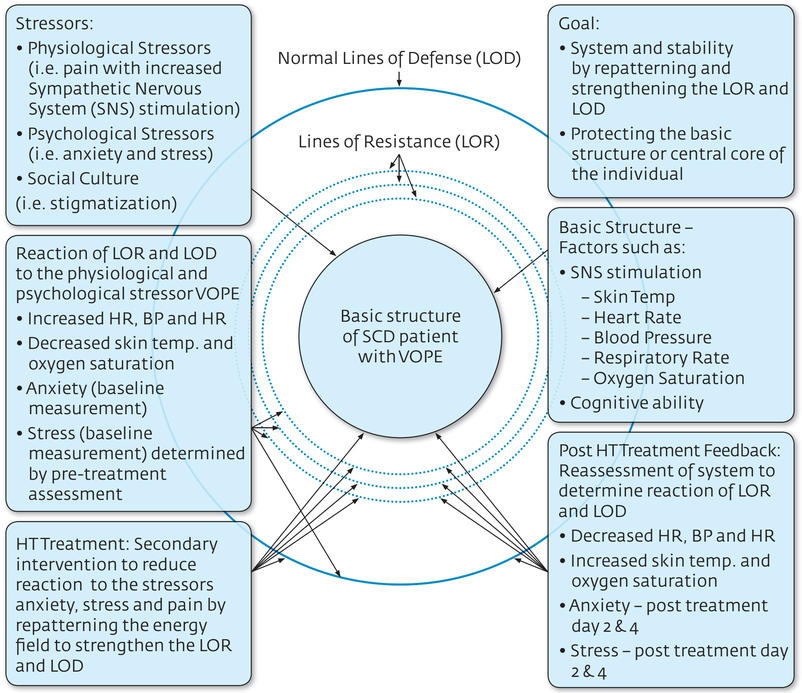
FLOW OF PARTICIPANTS



PURPOSE

The purpose of this parallel-group randomized control trial (RCT) was to determine the effectiveness of Healing Touch on anxiety, stress, pain, pain medication usage, and selected physiological measures of hospitalized SCD adults experiencing a VOPE.

THEORETICAL MODEL



HYPOTHESIS

The research hypotheses related to the proposed intervention in hospitalized SCD adults experiencing a VOPE were that those participants who received HTM would:

1. Experience lower blood pressure, heart rate, respiratory rate, and a higher oxygen saturation and skin temperature than patients receiving the ACM at completion of the interventions on day 1, day 2, day 3, and day 4.
2. Experience lower anxiety scores than patients receiving the ACM at completion of the interventions on day 2 and day 4.
3. Experience lower stress scores than patients receiving the ACM at completion of the interventions on day 2 and day 4.
4. Experience lower pain scores than patients receiving the ACM at completion of the interventions on day 1, day 2, day 3, and day 4.
5. Require less pain medication than patients receiving the ACM at completion of the interventions on day 1, day 2, day 3, and day 4.

STUDY SAMPLE

A convenience sample of 24 SCD adult patients, admitted to a 765-bed, urban not-for-profit health care system, ranging from 22 to 49 years of age (average age 31.4 yrs), experiencing a VOPE was recruited. Patients were approached about enrollment between 24-48 hours after admission, having allowed time for the initial pain control.

Inclusion criteria were:

1. Age: 18 years or greater
2. Male or female
3. Medically diagnosed with SCD (to include hemoglobin SS, SD, SC or sickle-thalassemia)
4. One previous hospitalization for a VOPE within the past year
5. Admitted for treatment of a VOPE
6. English speaking

Exclusion criteria were:

1. Patients with sickle cell trait instead of SCD
2. Patients who were admitted to the ICU
3. Patients who were pregnant
4. Vulnerable participants (i.e. prisoners or children under age 18)
5. Notification of patient admission after 3 days of hospitalization

RESEARCH DESIGN

A parallel-group RCT was designed to test effects of 30 minutes of HTM versus ACM given daily over 4 consecutive days, using self-reported data on anxiety, stress, pain, and the selected physiological data.

RESULTS

The results were not statistically significant across the two groups due to the small sample size. No statistically significant changes in any between group comparisons were found except for present pain on day 4 for the ACM group.

The within groups comparison showed a reduction in physiological parameters, but was not statistically significant.

For anxiety, the within groups comparison showed a statistically significant reduction for the ACM group ($p=.01$).

For stress, the ACM group reached a statistically significant reduction ($p=.03$), after day 4, however the HTM group also reached statistical significance after day 2 ($p=.02$) and again after day 4 ($p=01$).

The pre- to post-intervention reductions in present pain were greater in the HTM group than the ACM group across all 4 days. The only statistically significant within groups findings for present pain reduction were in the HTM group ($p<.01$) on day 1,

The trends identified warrant further research on Healing Touch's effect on anxiety, stress, and pain using a larger sample.