INTRODUCTION
- Numerous patients with heart failure go without experiencing the full affect and benefits of receiving palliative care.
- Lack of palliative care initiative and utilization within the heart failure provider and patient population
- Gaps in literature
- Palliative care management and patients with heart failure.
- Healthcare provider knowledge of disease specific palliative care other than oncology is inadequate
- Clear need for educating providers regarding palliative care for patients with heart failure

METHODS
Population
- Voluntary participation of the master’s degree prepared heart failure advanced practice nurses.
  - The heart failure advanced practice nurses lead the four outpatient settings under the guidance and collaboration of a cardiologist.
Setting
- Outpatient heart failure clinic.
Design
- Quality review to assess heart failure palliative care integration education and the amount of palliative care service referrals initiated for heart failure patients.
  - The advanced practice nurses took an online heart failure palliative care course and posttest.
  - The participants were instructed to implement what they learned into practice.
  - A pre- and post-educational intervention count of palliative care referrals made by the heart failure advanced practice nurses were collected by the project leader from the palliative care case managers.
  - The project leader kept count of the referrals in a failure palliative care referral spread sheet.
Timeline
- One full month before the online educational intervention and one full month after the online educational intervention.

RESULTS
- Null hypothesis
  - A total of 578 patients with heart failure were seen by the advanced practice nurses in the outpatient Heart Failure Clinic during this project. Zero out of 290 patients were referred to palliative care services during the pre-education month and only one out of 288 patients received a palliative care referral during the post-educational month.
  - Increasing healthcare provider knowledge of heart failure specific palliative care utilizing an online educational tool did not increase initiation of palliative care referrals.

ANALYSIS
- Descriptive statistics was used to summarize the amount of palliative care referrals made by the advanced practice nurses before and after the palliative care heart failure education.
  - The setting of the project being in an outpatient Heart Failure Clinic and the amount of patients with heart failure who were seen provided an abundance of opportunities for the providers to implement their knowledge into practice.
  - There was an increase in palliative care referrals after the educational intervention, but one out of 578 patients received palliative care.
  - The quantity of referrals made pre- and post-educational intervention compared to amount of patients seen proves that an online educational program alone is ineffective

DISCUSSION
- Possible causes for the negative result
  - Poor performance of the methodology
  - Inadequacies in the methodology
  - Lack of published negative studies pertaining to heart failure and palliative care integration
  - All participants in the project specialized in heart failure; however, there were only five providers recruited to execute the methodology.
  - Limited generalizability
  - Underrepresentation of the population
  - Consideration of incorporating physician assistants and physicians
  - Time constraint
    - The providers only had one month to implement what they learned into practice. The pre-educational timeframe was also only one month.
  - Frequency of appropriate patients seen in the outpatient Heart Failure Clinic is unknown
  - Unclear as to whether the heart failure advanced practice nurse offered a palliative care referral to the heart failure patient and if the patient was unwilling to proceed with an initiated referral.
    - A provider offering a palliative care referral to a patient with heart failure would have counted as a positive reflection on the educational intervention.
    - The pre- and post-educational intervention was a standardized technique
    - Methodology lacked an assessment of the advanced practice nurse’s learning needs.
    - It is essential to evaluate provider knowledge deficits in order to understand the gaps and barriers preventing palliative care referral initiation

IMPLICATIONS for NURSING PRACTICE
- The magnitude of palliative care services combined with heart failure advanced practice nursing is significant. Many patients with heart failure needing palliative care who are managed in the outpatient setting unfortunately have repeat hospitalizations. The palliative care supported advanced practice nurses can bridge both settings in order to maintain continuity of care for the patient

IMPLICATIONS for FUTURE RESEARCH
- Researchers can not rely solely on an online educational program to increase provider integration of palliative care and heart failure services.
- More time, focus, and attention to knowledge deficits need to be directed towards enhancing health care provider insight of integrating heart failure and palliative care management.
- Expand the representation of heart failure providers to increase reliability
- Determine health care provider knowledge deficits
- Acknowledge trend of how often palliative care appropriate patients are seen in the Heart Failure Outpatient Clinic would be helpful to identify for the timing of the project.
- Recognizing whenever a palliative care referral was offered to a heart failure patient by a provider should also be taken into consideration. Providing more time for providers to implement what they have learned from the educational program into practice is suggested.
- Revisiting what works for other chronic diseases and palliative care for recommendations on patients with heart failure could also be a possibility for future research opportunities.