Cardiovascular disease is a widespread cause of mortality worldwide and is responsible for 1 in 4 deaths within the United States alone. Rehabilitation following a cardiovascular related incident and/or surgery has been shown to improve clinical outcomes and reduce mortality, however admittance to cardiac rehabilitation hospitals is very low and reserved only for high risk patients. For those that opt for traditional outpatient services, they must overcome a multitude of barriers to attend therapy including long traveling distances, a lack of transportation and scheduling issues. It is estimated that only 33% of patients referred to cardiac rehabilitation attend at least one session. Recently there has been much attention drawn to home-based rehabilitation through use of a digital monitoring system dubbed “tele-rehabilitation.” It is estimated that home-based cardiac telehealth programs will result in similar clinical outcomes while having the potential to greatly improve participation in cardiac rehabilitation.

The purpose of this literature review was to compare clinical outcomes in regards to quality of life and/or satisfaction for patients attending home-based cardiac telehealth rehabilitation versus those who remained within the inpatient setting, those who traveled to an outpatient facility for similar rehab and those receiving traditional in-home care.

Methods
A literature search of CINAHL, ProQuest Health and Google Scholar was conducted. Articles were searched using the following search terms: “home-based vs clinic based cardiac rehabilitation”, “home-based vs outpatient cardiac rehabilitation”, “home-based vs hospital cardiac rehabilitation” and “home-based cardiac telehealth rehabilitation.” Inclusion criteria included published within the last ten years, English language, human subjects, peer reviewed, utilized telehealth in the home, examined patients undergoing cardiac rehabilitation and assessed quality of life and/or patient satisfaction. Three studies were found meeting the inclusion criteria.

Results
All three articles found beneficial quality of life and/or patient satisfaction in patients receiving home-based cardiac telehealth rehabilitation. Of the three articles, two concluded statistically significant better ratings of quality of life and/or patient satisfaction over alternative settings (outpatient and no technology home-based). Secondary outcomes included statistically significant longer time from surgical intervention or cardiac incident to the start of cardiac rehabilitation in the inpatient group as compared to the home telehealth rehabilitation group. Additionally two studies found similar post intervention exercise capacity (measured by 6MWT and V02 Max) of home-based telehealth rehabilitation groups versus inpatient and outpatient settings.

Conclusion
Current research supports the notion that at home cardiac rehabilitation has beneficial clinical outcomes in health related quality of life and/or patient satisfaction to inpatient, outpatient and traditional in home therapy. Additional research is required to determine the best telehealth intervention program as well as the optimal treatment plan to promote successful cardiac rehabilitation. The profession would also benefit from the development of clinical guidelines to determine which types of cardiac conditions perform best in each setting.

References