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# Using Community Health Workers in Collaboration with Nurse Case Managers in Effecting Change in Quality of Life for Heart Failure Patients

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## Introduction

With changes in our healthcare environment, hospitals and healthcare systems must find innovative ways to decrease readmissions and unnecessary emergency room visits, increase patient adherence, and manage chronic disease, while improving the patient's overall quality of life. Once creative approach is through the use of a Community Health Worker (CHW) program.

## Purpose

According to Perry & Zullinger (2012), a CHW provides an essential link within the healthcare team and is a powerful force for promoting health behaviors. According to Brooks, et al. (2014), CHW programs have resulted in an average savings of $2,245 per patient. These authors estimated that that the healthcare system saves $2.28 for every $1 it invests in a community health workers program.

Studies show that approximately 76% of heart failure patients have a relatively poor quality of life, while most of these factors can be modified through the use of ongoing education (Lakdizaji, et al., 2013). In a randomized trial documented by Lakdizaji, et al. (2013), the control group that utilized an educational program showed significant differences in their total quality of life score as well as their individual physical and emotional dimensions as measured by the Minnesota Living with Heart Failure Questionnaire©. This study indicated that through ongoing education, heart failure patients' quality of life can be improved.

This program was designed to evaluate the effectiveness of adding the role of Community Health Worker to a current Continuum Case Management model on the quality of life for heart failure patients. Assisting with health education, patient navigation, and patient monitoring, CHWs act as a "bridge" between the patients and other healthcare providers to improve health behaviors and outcomes.

## Study Design

This longitudinal study paired a CHW with a RN Continuum Case Manager.

The Minnesota Living with Heart Failure Questionnaire© (MLWHFQ) was used to evaluate the heart failure patients' perception of quality of life at the time of initiation of services and after 3 months. This tool measures the physical, emotional, social, and mental components of one's quality of life. The questionnaire utilizes a 6-point Likert scale to determine how much each of 21 facets prevented them from living as they desire (Rector, 2015).

Patients were identified for services following the same criteria used for Continuum Case Management. The CCMs and CHWs conducted the first visit together. During the first visit, the CHW completed the MLWHFQ©. The CCM completed the nursing assessment. Based on the results of these two reviews and input from the patient/family, a plan of care was developed. This plan determined specific individual needs and how/if a CHW would be appropriate for involvement in the care of the patient. Consent was received from the patient. This study included patients whose plan of care included services by the CHW. Ongoing communication occurred with all healthcare team members.

Potential CHW interventions included the following:

- Health education; primarily self-care management
- Healthcare system navigation
- Arranging transportation to/from healthcare appointments
- Collecting vital signs/weights
- Reviewing home environment for potential safety concerns
- Assistance with financial associated paperwork, forms

## Outcomes

Pre-data was the period 3 months prior to CHW interventions and Post-data was the period 3 months after CHW interventions. (n=41)

### Minnesota Living with Heart Failure Questionnaire© (MLWHFQ)

| | Pre Questionnaire Mean/Std. Deviation | Post Questionnaire Mean/Std. Deviation | Paired T-Test (t value) |
|---|---|---|---|
| **Physical Dimension** | 26.3(8.2) | 8.7(5.1) | 13.3* |
| **Emotional Dimension** | 14.4(5.8) | 7.6(4.7) | 7.3* |
| **Total Score** | 59.7(15.8) | 22.2(11.2) | 15.1* |

Paired t-test p=<.01

### Access-Admissions & ED Visits

| | Pre | Post | Paired t-test (t value) |
|---|---|---|---|
| **Total Admissions** | 84 | 17 | |
| **Total ED visits** | 74 | 18 | |
| **Mean Admissions (SD)** | 2.02 (1.1) | .47(.65) | 7.59* |
| **Mean ED visits (SD)** | 1.75(1.3) | .50 (.77) | 5.51* |

Paired t-test p=<..000

### Healthcare Finances

Total charges decreased by $846,225 or 79.2%.

**References:** Available upon request