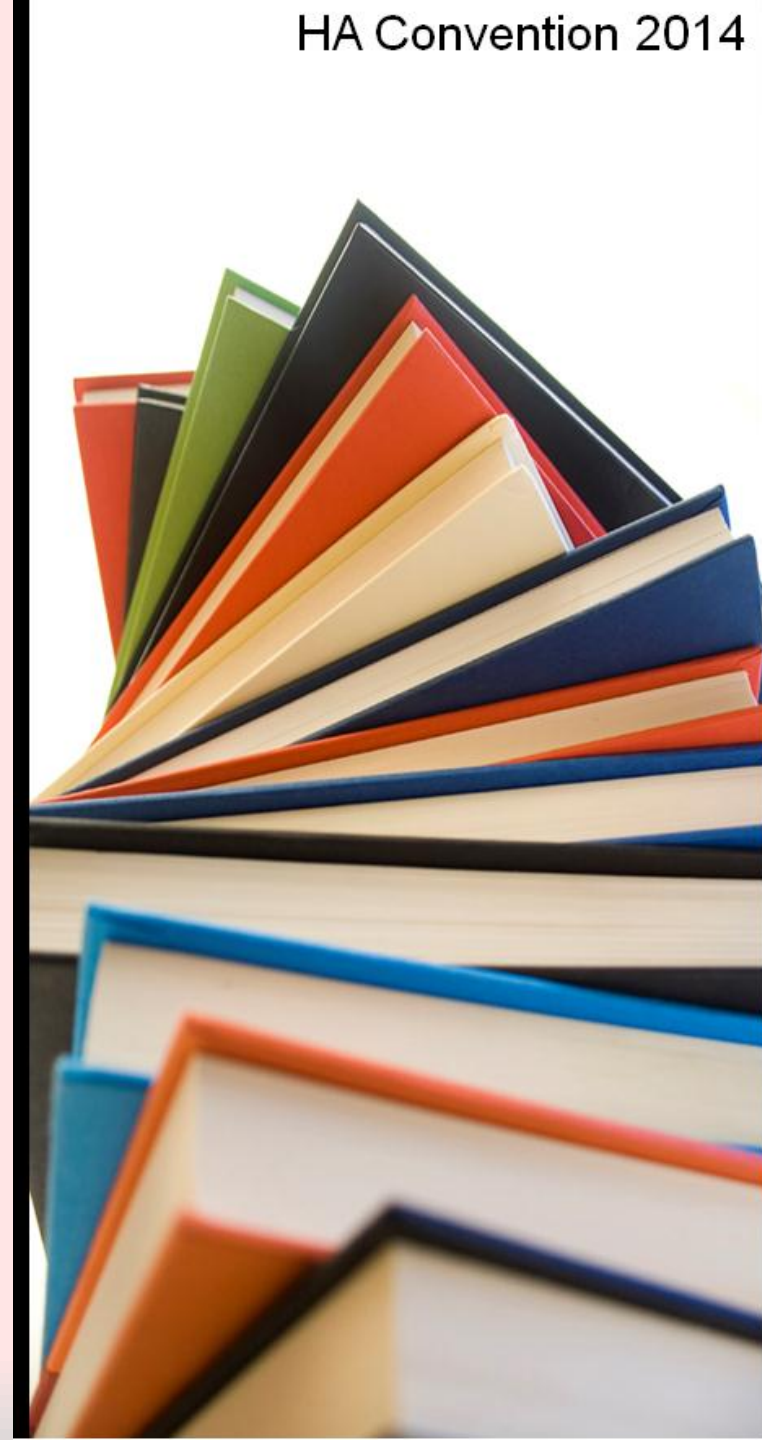


# The Effect of Nurse Coordinated Transitional Care on Unplanned Readmission for Patients with Heart Failure:

## ***A Critical Literature Review***

LP LAI

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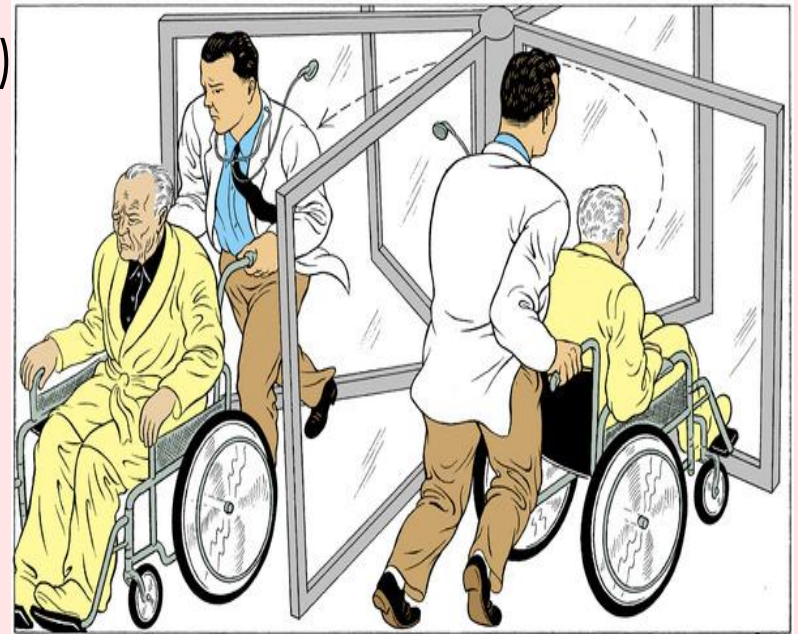


# Study Questions

1. Would patients with chronic heart failure receiving nurse coordinated transitioning of care report a lower readmission rate than those who do not?
2. Are there any factors in nurse coordinated TC influencing its effects on CHF patients care journey?

# Background

- ♥ Heart disease contributed to the 2<sup>nd</sup> highest reason of unplanned readmission in HA (Wong et al, 2011)
- ♥ Patients with CHF rank 2<sup>nd</sup> after those with chronic obstructive pulmonary disease in terms of readmission rate (Ma et al, 2005)
- ♥ HF upholds a high predicted probability in readmission in HA (Ng et al, 2011)
- ♥ Hospital readmission rate (WHO, 2005)
  - an important indicator of patient health outcome
  - a key undesirable outcome of health care systems
- ♥ Nurse-coordinated TC
  - positive effects on reducing readmission rates of older CHF patients hospitalized with various health conditions (Naylor et al, 1999)



# Services at A Glance in HA



## Integrated Discharge Support Program for the Elderly Patients (IDSP)



### Target Patients

- Elders aged 60 or above
- HA-wide admission risk prediction score\* > 0.2 or by clinical referral
  - High readmission risk [e.g. those diagnosed with congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD)]
  - High rehabilitation needs (e.g. those with stroke, proximal hip fracture or falls)
  - High personal care needs (e.g. those with dementia, Parkinson's disease)



## A Sustainable Service Model to deliver Cardiac Ambulatory Care at Cardiac Day Centre of Queen Elizabeth Hospital

### Congestive Heart Failure (CHF) Clinic<sup>1</sup>

#### Services provided:

- To promote / improve health seeking self-help behavior
- To improve quality of life and symptoms monitoring
- Medication titration according to pre-set protocol
- Telephone hotline support during office hours
- Collaborate with NGOs / patient self-help groups for continuation of care



EBP = QUALITY



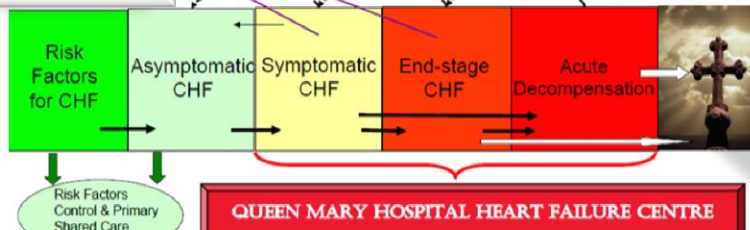
## HEART FAILURE PATHWAY

**Cardiac Rehabilitation Program**

Medical Therapy  
Device Therapy  
Cardiac Surgery  
Structural Heart Interventions  
Cardiac Investigations

Heart Transplant Program\*\*  
Stem Cell Program  
VAD + BTT Program  
Implantable Device  
Cardiac Surgery  
Complex Investigations  
Cardiac Hospice Care

Advanced High-tech Mechanical & Circulatory Support Program



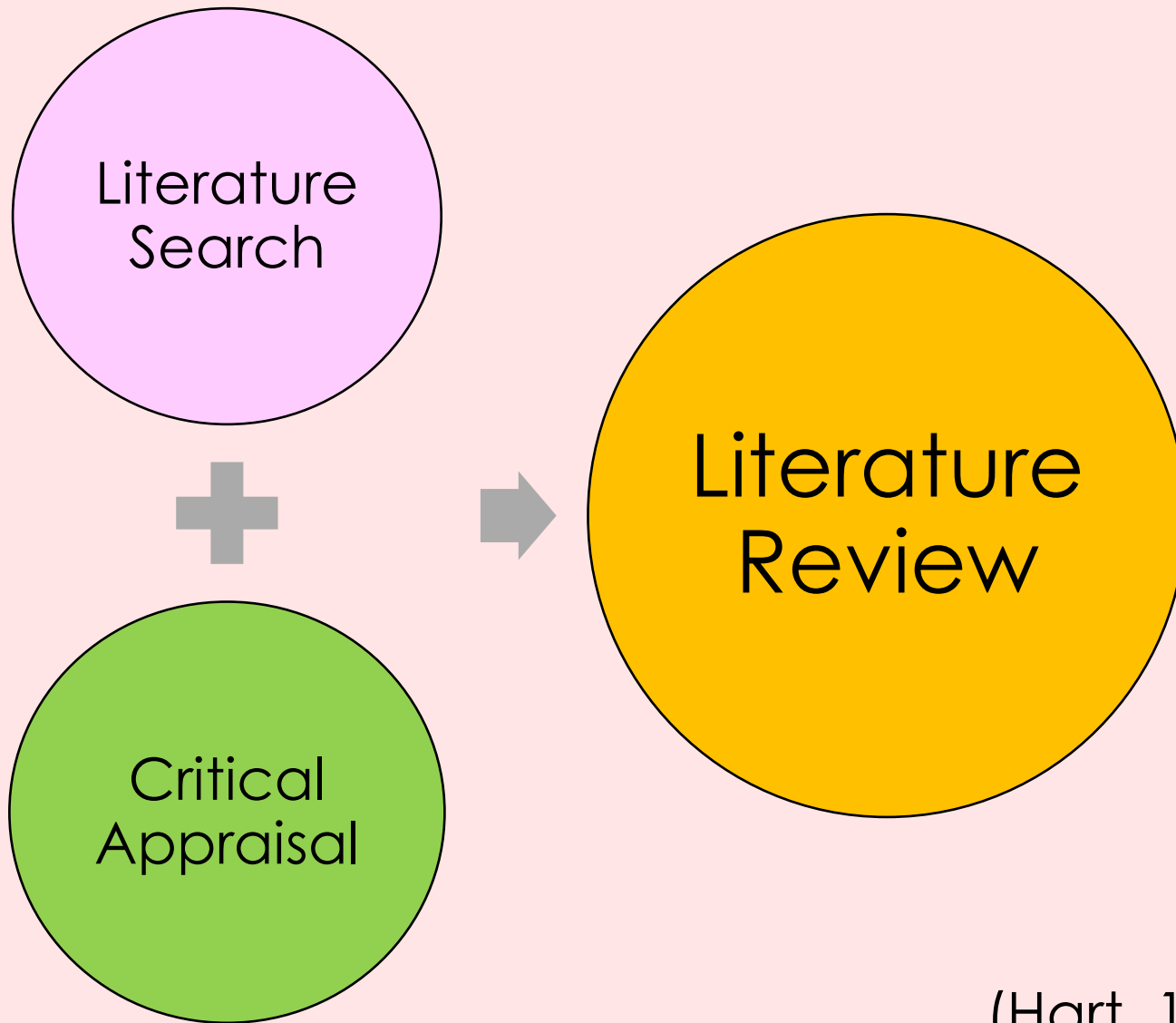
Caritas Medical Centre  
Community Geriatric Assessment Team

Congestive Heart Failure Reduction  
Program in Private Nursing Home

Feb 2012

# Literature Review (LR) as a Research Methodology

- ♥ EBP is often discovered through methods in what are referred as qualitative **meta-synthesis** and **integrative review** (Houser, 2008) .
- ♥ **Integration** is about making connections between ideas, theories, and experiences (Polit et al, 2001) .
- ♥ **LR is a research methodology** because it involves an understanding of the interrelationship between theory, method, research design, practical skills and particular foundation (Hart, 1998).
- ♥ LR is the most useful research method for an investigation about the effectiveness of an intervention in healthcare (Guyatt et al, 1993).



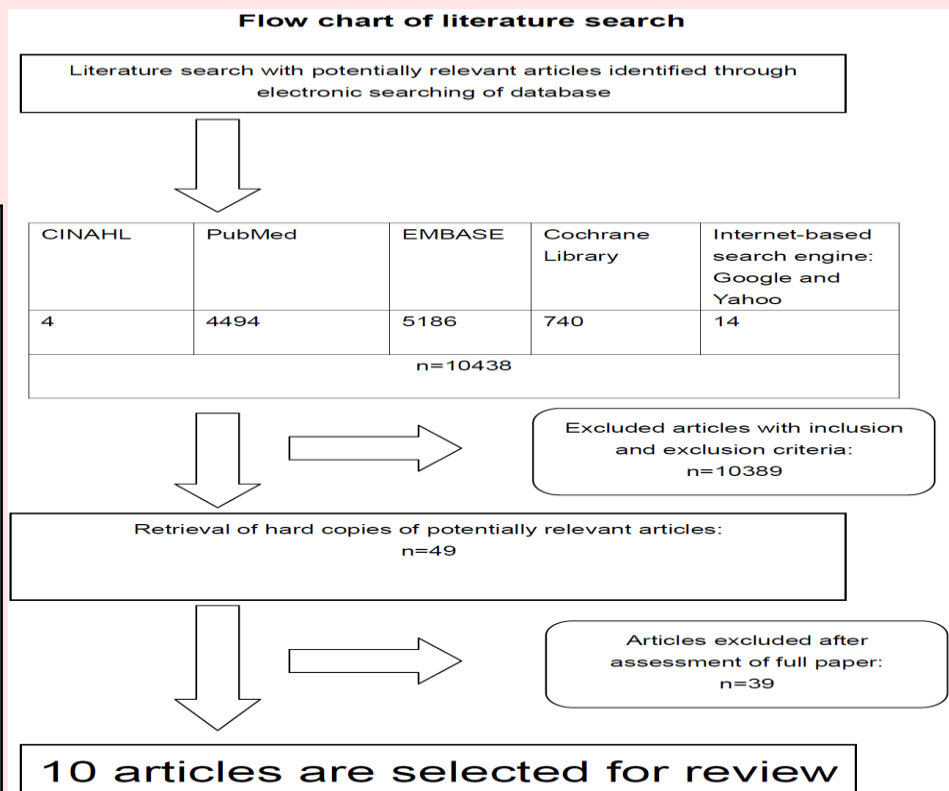
(Hart, 1998)



# Literature Search

## Boolean Logic

Heart failure*	Nurse coordinated*	Transition* care	Readmis*
OR	OR	OR	OR
Chronic Heart Failure*	Nurse supported*	Transition* program	Rehospital*
OR	OR	OR	OR
Congestive Heart Failure*	Nurse liaised*	Hospital to home	Readmission rate*
OR	OR	OR	OR
Heart Problem*	Nurse initiated*	Care transition*	Admission* rate
AND	AND	AND	AND
OR	OR	OR	OR
Heart disease*		Care coordinat*	Unplanned readmission*
OR		OR	OR
Cardiac Disease*		Continuity of patient care*	Emergency room visit*
		OR	
		Patient care plan*	
		OR	
		Patient discharge* plan	
		OR	
		Case management*	



Inclusion criteria	Exclusion criteria
<ul style="list-style-type: none"> <li>Research based and within the parameters of nurse coordinated transitioning care of heart failure patients</li> <li>Focus on the significance of heart failure patients with and without transitioning care</li> <li>Published by recognized academic publishers</li> <li>Published in refereed academia journal</li> <li>Published within the period from year 2001 to 2012</li> <li>Articles provide both the abstract and full content</li> <li>Primary source</li> </ul>	<ul style="list-style-type: none"> <li>Research not focus on heart failure patients</li> <li>Research focus on health professionals other than nurses</li> <li>Research result have no data about readmission rate</li> <li>Published before year 2001</li> <li>Provide only the abstract or summary</li> <li>Published in non-English content</li> <li>Secondary sources</li> <li>Non-research articles</li> <li>Opinion articles</li> </ul>

# The Literature

Article	Literature
1	Russell D, Rosali R, Sobolweski S, Marren J and Rosenfeld P (2011) Implementing a transitional care program for high-risk heart failure patients: Findings from a community-based partnership between a certified home healthcare agency and regional hospital. <i>Journal for Healthcare Quality</i> . 33 (6), 17 – 24.
2	Wang SP, Lin LC, Lee CM and Wu SC (2011) Effectiveness of a self-care program in improving symptom distress and quality of life in congestive heart failure patients: A preliminary study. <i>Journal of Nursing Research</i> . 19 (4), 257 – 266.
3	Stauffer BD, Fullerton C, Fleming N, Ogola G, Herrin J, Stafford P M and Ballard D J (2011) Effectiveness and cost of a transitional care program for heart failure: A prospective study with concurrent controls. <i>Archives of Internal Medicine</i> . 171 (14), 1238-1243.
4	Daley CM (2010) A hybrid transitional care program. <i>Critical Pathways in Cardiology</i> . 9 (4), 231 – 234.
5	Williams G, Akroyd K and Burke L (2010) Evaluation of the transitional care model in chronic heart failure. <i>British Journal of Nursing</i> . 19 (22), 1402 – 1407.
6	Kwok T, Lee J, Woo J, Lee TFD and Griffith S (2008) A randomized controlled trial of a community nurse-supported hospital discharge programme in older patients with chronic heart failure. <i>Journal of Clinical Nursing</i> . 17, 109 – 117.
7	Anderson C, Deepak BV, Amoateng-Adjepong Y and Zarich S (2005) Benefits of comprehensive inpatient education and discharge planning combined with outpatient support in elderly patients with congestive heart failure. <i>Congestive Heart Failure</i> . 11, 315 – 321.
8	Naylor MD, Brooten DA, Campbell RL, Maislin G, McCauley KM and Schwartz SJ (2004) Transitional care of older adults hospitalized with heart failure: A randomized, controlled trial. <i>Journal of American Geriatrics Society</i> . 52, 675 – 684.
9	Harrison MB, Browne GB, Roberts J, Tugwell P, Gafni A and Graham ID (2002) Quality of life of individuals with heart failure: A randomized trial of the effectiveness of two models of hospital-to-home transition. <i>Medical Care</i> . 40 (4), 271 – 282.
10	Blue L, Lang E, McMurray JJV, Davie AP, McDonagh TA, Murdoch DR, Petrie MC, Connolly E, Norrie J, E Round CE, Ford I and Morrison CE (2001) Randomised controlled trial of specialist nurse intervention in heart failure. <i>British Medical Journal</i> . 323 (7315): 715–718.

♥ US, Taiwan, HK, UK, Canada

♥ 2001 – 2011

♥ Quantitative design

♥ Randomized control trial (4)

♥ Quasi-experimental (2)

♥ Observational (2)

♥ Undefined but convenience sampling (2)



# Critical Appraisal by Coughlan et al (2007) Critiquing Framework

Coughlan M, Cronin P & Ryan F (2007) Step-By-Step Guide to Critiquing Research. Part 1: Quantitative Research. *British Journal of Nursing*. 16 (11), 658-663.

Elements influencing the believability of the research	
Elements	Questions
Writing style	Is the report well written- concise, grammatically correct, avoid the use of jargon? Is it well laid out and organized?
Author	Do the researcher(s) qualifications/ position indicate a degree of knowledge in this particular field?
Report title	Is the title clear, accurate and unambiguous?
Abstract	Does the abstract offer a clear overview of the study including the research problem, sample, methodology, finding and recommendations?
Elements influencing the robustness of the research	
Elements	Questions
Purpose/research problem	Is the purpose of the study/ research problem clearly identified?
Logical consistency	Does the research report follow the steps of the research process in a logical manner? Do these steps naturally flow and are the links clear?
Literature review	Is the review logically organized? Does it offer a balanced critical analysis of the literatures? Is the majority of the literature of recent origin? Is it mainly from primary sources and of an empirical nature?
Theoretical framework	Has a conceptual or theoretical framework been identified? Is the framework adequately described? Is the framework appropriate?
Aims/objectives/ research question/hypothesis	Have aims and objectives, a research question or hypothesis been identified? If so are they clearly stated? Do they reflect the information presented in the literature review?
Sample	Has the target population been clearly identified? How were the sample selected? Was it a probability or non-probability sample? Is it of adequate size? Are the inclusion/ exclusion criteria clearly identified?
Ethical considerations	Were the participants fully informed about the nature of the research? Was the autonomy/ confidentiality of the participants guaranteed? Were the participants protected from harm? Was ethical permission granted for the study?
Operational definitions	Are all the terms, theories and concepts mentioned in the study clearly defined?
Methodology	Is the research design clearly identified? Has the data gathering instrument been described? Is the instrument appropriate? How was it developed? Were reliability and validity testing undertaken and the results discussed? Was a pilot study undertaken?
Data Analysis/ results	What type of data and statistical analysis was undertaken? Was it appropriate? How many of the sample participated? Significant of the findings?
Discussion	Are the findings linked back to the literature review? If a hypothesis was identified was it supported? Were the strengths and limitations of the study including generalizability discussed Was a recommendation for further research made?
References	Were all the book, journals and other media alluded to the study accurately reference?

Believability  
of the  
research

- Writing Style
- Author
- Report title
- Abstract

Robustness  
of the  
research

- Purpose/Research problem
- Logistical consistency
- Literature review
- Theoretical framework
- Aims/objectives/research question/hypothesis
- Sample
- Ethical consideration
- Operational definitions
- Methodology
- Data analysis/results
- Discussion
- References




Trustworthiness



Applicability to nursing practice

# Literature Findings

*Reduced readmission range from 28-day to 12 months*

- ♥ ✓ Eight articles \_  Article 3
- ♥ ✗ Two articles showed inconclusive results
  - no statistically difference in both intervention and usual care groups. But,
    - \* intervention group have lesser healthcare utilization

## Others findings

↑ Functional status

↑ Independence

↓ Symptom distress

↑ QOL

↑ Patient satisfaction

*The empirical findings from the ten articles do support the need of nurse coordinated transitioning of care across healthcare settings*

## Conclusion – Answer to Q1

Nurse Coordinated Transitioning of Care  
for  
Chronic Heart Failure Patients  
enables to lower  
Hospital Readmission

# Critical Analysis of the Findings

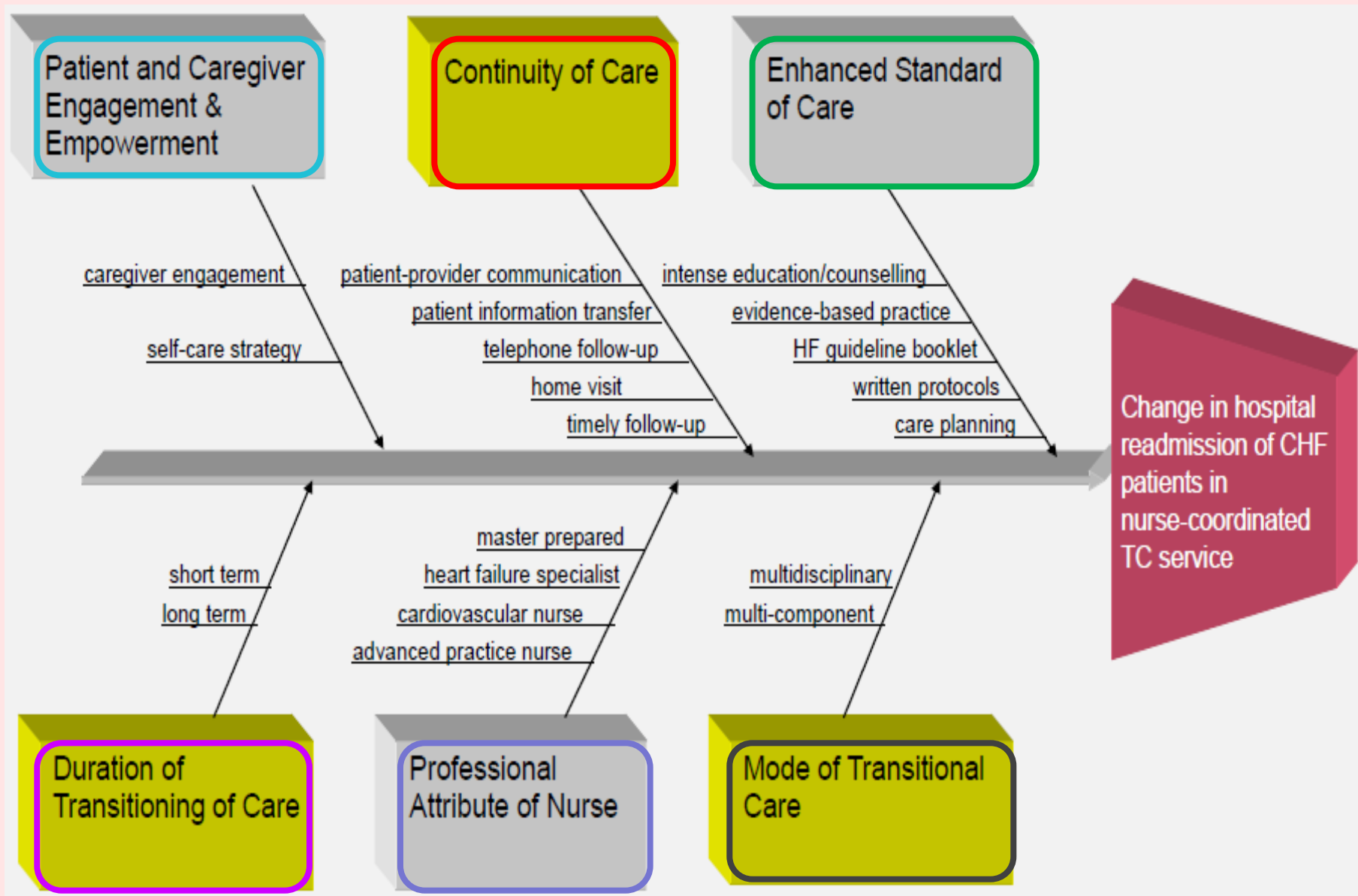
## ♥ Fishbone diagram

- Identify factors emerged from the researches' findings that influence CHF readmission in nurse coordinated transitional care service
- Compare & categorize factors to generate themes

## ♥ Thematic analysis

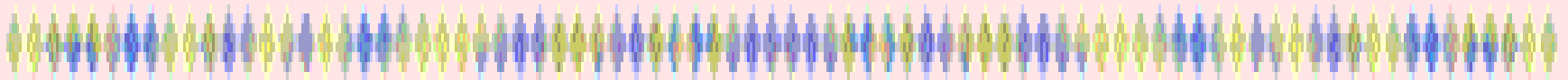
- Rebuild and re-structure each individual theme into a connected whole which provides insight and answers to the research question 2
  - Are there any factors in nurse coordinated TC influencing its effects on CHF patients care journey?

# Conclusions - The Six Themes



# Recommendations

- ♥ Develop TC model in heart failure management with bundles of care standards
- ♥ Incorporate TC in cardiac rehabilitation
- ♥ Develop nurse provider training program on effective discharge planning and transitional care





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- ♥ Ng MF, Sha KY and Tong BC (2011) Bridging the gap: Win-win from integrated discharge support for elderly patients. Available at: <http://www.ha.org.hk/haconvention/hac2011/proceedings/pdf/Community%20Collaboration%20Forum/CF3.pdf> (accessed on 01/04/2014).
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