Determinants of Quality of Life among Congestive Heart Failure Persons

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Significances: Heart Failure

- Global (WHO, 2015)
  - 17.5 million people die each year from CVDs, an estimated 31% of all deaths worldwide
  - >75% of CVD deaths occur in low-income and middle-income countries
Significances: Heart Failure

- **The United States**
  - About
    - 5.1 million people in the United States
    - Half of people who develop heart failure die within 5 years of diagnosis
    - 47% readmission within 3 months
  - One in 9 causes of deaths in 2009
  - Estimated costs $32 billion each year. (incl. health care services, medications, and missed days of work)
Significances: Heart Failure

- Thailand
  - Incidence rate 1%
  - Mortality rate 10%
  - 3rd Range of admission rate in the hospitals
Patients reported Low level of quality of life

Reasons:
- Physical symptoms
- Uncertainty of prognosis
- Cognitive function
- Role loss
- Affective response
- Coping
- Social support
Factors altered QOL of CHF persons

**Characteristics and Socio-economic status:** age, sex, race, educational limitations, low-income, financial constraints

**Health & Illness:** insurance, coexistent illness, location of care, health perceptions, medical toxic or unacceptable side effects, long term, compliance with treatment, hospital readmission, severity of disease, functional status

**Psychosocial factor:** depression, hopelessness, emotion distress
Factors altered QOL of CHF persons

**Risk factors:** substance abuse, cigarette smoking

**Social support:** lack of social support, social isolation

**Non-pharmacologic interventions:** improving psychosocial outcomes e.g. exercise, CHF disease management programs, stress management and cognitive therapy, biofeedback relaxation, well-being therapy, rehabilitation programs
Significances: Heart Failure

- Congestive heart failure patients trend to be functional decline.
- Re-hospitalization because of disease progression and complication of illness.
- Most cases of heart failure can be prevented and rehabilitation
  - living a healthy lifestyle
  - Reducing risks
Objectives

- Aim to examine
  - correlated factors of Quality of Life Among Congestive Heart Failure Persons
  - Predicting factors of Quality of Life Among Congestive Heart Failure Persons
Methodology

- **Sample**
  - 200 heart failure patients who follow up at outpatient department of Queen Savangwattna Memorial Hospital, Chonburi,

- **Instruments**
  - a package of interviewing questionnaires
    - Demographics, health perception, depression, health behavior, risk, functional ability, illness management, and well-being

- **Data analyses**
  - Descriptive, Pearson’s correlation, and Stepwise Multiple Regression.
Results

- Sample characteristics: Majority of sample
  - Male (56.0%)
  - Age average 57.31 (SD. = 15.60)
  - Married status (90.0%)
  - Employee (53.5 %)
  - Income > 10,000 Baht (75.5%)
  - Living with congestive heart failure < 5 years (83.0%)
  - Experienced admission at lease once (74.02%).
<table>
<thead>
<tr>
<th>variables</th>
<th>Mean</th>
<th>SD</th>
<th>interpret</th>
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</thead>
<tbody>
<tr>
<td>Health perception</td>
<td>7.32</td>
<td>1.41</td>
<td>good</td>
</tr>
<tr>
<td>Functional ability</td>
<td>32.31</td>
<td>7.05</td>
<td>good</td>
</tr>
<tr>
<td>Adapt to illness</td>
<td>12.45</td>
<td>2.34</td>
<td>good</td>
</tr>
<tr>
<td>Mental &amp; emotional health</td>
<td>39.14</td>
<td>4.69</td>
<td>good</td>
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<tr>
<td>Depression</td>
<td>31.34*</td>
<td>7.03</td>
<td>low</td>
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<tr>
<td>Perceived Well-being</td>
<td>8.7</td>
<td>0.87</td>
<td>good</td>
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* Mild depression = 1.5%
<table>
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<th>SD</th>
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<tr>
<td>PA &amp; exercise</td>
<td>12.05</td>
<td>4.55</td>
<td>Low</td>
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<tr>
<td>Stress management</td>
<td>25.03</td>
<td>3.78</td>
<td>Moderate</td>
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<td>Adhere to treatment &amp; risk control</td>
<td>44.22</td>
<td>7.06</td>
<td>Moderate</td>
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<tr>
<td>Eating behaviors</td>
<td>57.03</td>
<td>7.82</td>
<td>Moderate</td>
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Factors related to quality of life

- Mental & emotional health ($r = .559, p < .001$)
- Functional ability ($r = .471, p < .001$)
- Adapt to illness ($r = .324, p < .001$)
- Depression ($r = -.317, p < .001$)
- Health perception ($r = .290, p < .001$)
- Eating behavior ($r = -.200, p = .003$)
- Physical activity/exercise ($r = .178, p = .006$)
Stepwise Multiple Regression revealed that determinants of quality of life:

- Mental and emotional health ($\text{Beta} = .433, p < .001$)
- Functional ability ($\text{Beta} = .267, p = .001$)

Total variance explained 36.8%
Table 2 Predicting factors of quality of life among congestive heart failure persons

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
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<th>Sig.</th>
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<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
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<td>Constant</td>
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<td>.418</td>
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<td>2.464</td>
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<tr>
<td>Mental &amp; emotional health</td>
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<td>.012</td>
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<td>6.687</td>
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<td>Functional ability</td>
<td>.033</td>
<td>.008</td>
<td>.267</td>
<td>4.125</td>
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Table 3 R, $R^2$, and Change Statistics of quality of life model

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adj. R$^2$</th>
<th>$R^2$ Change</th>
<th>F</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
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<tr>
<td>A</td>
<td>.559$^a$</td>
<td>.313</td>
<td>.309</td>
<td>.313</td>
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<tr>
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<td>.368</td>
<td>.362</td>
<td>.056</td>
<td>17.019</td>
<td>1</td>
<td>193</td>
<td>&lt;.001</td>
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A= Constant, Mental & emotional health
B= Constant, Mental & emotional health, and Functional ability
The results suggested that:

- Develop intervention to promote based on
  - Mental and emotional health
  - Functional ability
- Multi-site study to confirm research results
Thanks

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- Participants
  - Faculty of Burapha University, Thailand
  - Thai Red Cross: Savangwattna Memorial Hospital, Sriracha Chonburi