Community Genogram: An Innovation to Guide Health Promotion and Risk Reduction Interventions in Rural Thailand

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NCD Incidences in Thailand
Provincial Stroke Incidence per 100,000 Population, 2014

Source of data: Health Data Center system, the Permanent Secretary Ministry of Public Health.
Study Aims and Setting:

1. Study aims:
   - To evaluate the usefulness of a genogram for its capacity to serve as an aid to better understand family structure and dynamics at a community level
   - To guide community and individual health promotion and risk reduction interventions to prevent stroke and improve patient outcomes

2. Setting:
   - A high-risk, underserved population
   - Rural close-knit communities, Nakhon Ratchasima, Thailand.
Methods and Procedures

Informed Consent

Genogram Assessment & Analysis

At Risk Individual, Family

Outcome Evaluation
[Knowledge, Behaviors, Risk Level]

Home-based, Community-based Interventions

Diabetes, Hypertension, Stroke risks, CVD risk Screening
## Design, Measurements, & Analysis

<table>
<thead>
<tr>
<th>Design</th>
<th>Mix-method</th>
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<tr>
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<td>Pre-test, post-test design</td>
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<tr>
<td>Measurement</td>
<td>- Genogram, Group discussion guideline</td>
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<td>- Verbal NCD Screening</td>
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<td>- CDV risk, SUT Stroke Risk Scale</td>
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<td>- Questionnaire</td>
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<td>Analysis</td>
<td>Descriptive, comparative, inferential statistics</td>
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From Family Genograms to Community Genogram
Community-based Tailored Interventions
Results

- Visualizing risks through community genogram increased family and community awareness regarding NCD as well as other illnesses.

- The genogram facilitated the identification of key resource persons for disease control and prevention.
Expected vs. Actual Number of Participants

- **People with Stroke**:
  - Expected: 5
  - Actual: 5

- **People with Stroke Risks**:
  - Expected: 66
  - Actual: 42

- **General Population**:
  - Expected: 24
  - Actual: 25
The interventions resulted in significant improvements in knowledge, risk reduction skills, lifestyle, and clinical outcomes.

<table>
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<tr>
<th>Paired Samples Test</th>
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<td><strong>Paired Differences</strong></td>
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<tr>
<td>Mean</td>
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<td>pretest – post test</td>
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Improvement in SUT Stroke Risk Reduction

Pre Intervention vs. Post Intervention

- **High risk**: 9 cases (86.11%) before intervention, 4 cases (5.55%) after intervention.
- **Moderate Risk**: 62 cases (12.5%) before, 67 cases (93.06%) after.
- **Low risk**: 1 case (1.39%) before, 1 case (1.39%) after.

The data shows a significant reduction in moderate risk cases and a slight increase in high risk cases post-intervention.
Improvement in Health Behavior Routines
Conclusion

- A Community Genogram allowed nurses to learn about the structure of families, the social problems faced by the community, and the areas in which health care could be improved.

- Visualizing risks through a community genogram increased family and community awareness, increased community engagement and participation in health promotion and risk reduction interventions.

- The community genogram is a graphic tool that places emphasis on the positive strengths and resources that can be used to guide health promotion and risk reduction interventions.

- This application of community genogram provides a model which could be adapted with other disadvantaged or 'hard-to-reach' communities to improve health and wellbeing of their population.
Questions?