Management of menopausal problems in a primary health care setting
Introduction

- Increased life span - A New Phenomenon
- Average Lifespan-69.9 years
- Life Events- Menarche, Childbirth & Menopause
- Average age at menopause – 45 years
- Entry into health risk zone

- Lack of knowledge regarding menopause and related aspects
- Need empowerment to live healthy
- Better quality life
- 43 Million out of 1 Billion lack of knowledge regarding menopause and related aspects
Background
Nurse Led Education Program in Management of Menopausal Problems in a Primary Health Care Setting.

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Sonia Sunny
Background

Primary Health Centre

Women of Devanahalli
Women of Karnataka

- Occupation: Agriculture
- Literacy: 69%
Research Question

What is the effect of a Nurse Led Educational Program on knowledge and reported practice regarding management of menopausal problems among women residing in Devanahalli Primary health care setting, South India?
Ministering the Needed Help.
Development and delivery of NLEP

**Prescription**

3 Components
- Lifestyle Modification
- Diet Modification
- Demonstration of 4 Yoga postures, Breathing & Relaxation Tech

**Realities**

Agent: Underwent 6 months. YI Course
Recipient: 414 women aged 45-55 Yrs.
Goal: Knowledge Repo. Practice
Means: PHC Nurse
Community Health Worker
RCH Worker
Home Practice Log Sheet
Booster NLEP – 2 Weeks

Framework: Pre-School in each village

**Identification of Need For Help**

Population: All women, residing in Devanahalli Primary Health Care
Sample Size: 414 using power analysis.
Sampling Technique: Multi-Stage cluster sampling with Simple Random Sampling.
Tool: Structured Questionnaire
Structured Checklist

Administrative Permission:
From Directorate
Woman identified at residence with help of PHC staff.

IARB
✓ Obtained Written consent
✓ Information Sheet

Pre-Test
Interview in private at residence
35-45 mins

Analysis
Need for Knowledge
Healthy practice

**Validation of Provided Help**
Post-Test: After 4 Wks: Among 394

**Analysis & Interpretation**

Descriptive Statistics
Frequency, Percentage, Mean and Standard Deviation

Inferential Statistics
Comparison-Wilcoxon Signed Rank Test,
Correlation-Spearman’s Rho.
Association - Chi Square Test

Adequate Knowledge
Inadequate Knowledge
Results: Baseline variables, n=394

<table>
<thead>
<tr>
<th>MENOPAUSAL STATUS</th>
<th>Attained vs Transition</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO. OF SUBJECTS</td>
<td>50.50% (199)</td>
</tr>
<tr>
<td></td>
<td>49.49% (195)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AGE AT MENOPAUSE</th>
<th>Those Attained menopause</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO. OF SUBJECTS</td>
<td>14.57% (29)</td>
</tr>
<tr>
<td></td>
<td>41.7% (81)</td>
</tr>
<tr>
<td></td>
<td>44.72% (89)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average Age at menopause</th>
<th>47.59 (±1.99)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currently non-menstruating Menstruating</td>
<td>73.90% (291)</td>
</tr>
<tr>
<td></td>
<td>26.10% (103)</td>
</tr>
<tr>
<td>Spontaneous menopause</td>
<td>68.52% (270)</td>
</tr>
<tr>
<td>Surgical menopause</td>
<td>5.32% (21)</td>
</tr>
<tr>
<td>Illiterates</td>
<td>70.30% (277)</td>
</tr>
<tr>
<td>Laborers</td>
<td>71.60% (282)</td>
</tr>
<tr>
<td>Tobacco chewing</td>
<td>54.10% (213)</td>
</tr>
</tbody>
</table>
Assessment of pre and post-test knowledge scores n=394

Pre Test

- Very Good: 0%
- Good: 0%
- Average: 19% (75)
- Poor: 81% (319)

Post Test

- Very Good: 85.5% (337)
- Good: 12.7% (50)
- Average: 1.8% (7)
- Poor: 0%
Assessment of pre and post-test reported practice scores, n=394

Pre Test

<table>
<thead>
<tr>
<th>Level of Reported Practice</th>
<th>Pre Test Percentage</th>
<th>Pre Test Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>0%</td>
<td>(0)</td>
</tr>
<tr>
<td>Fair</td>
<td>33% (130)</td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>67% (264)</td>
<td></td>
</tr>
</tbody>
</table>

Post Test

<table>
<thead>
<tr>
<th>Level of Reported Practice</th>
<th>Post Test Percentage</th>
<th>Post Test Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>74.9% (295)</td>
<td></td>
</tr>
<tr>
<td>Fair</td>
<td>25.1% (99)</td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>0%</td>
<td></td>
</tr>
</tbody>
</table>
### Dimension wise comparison of pre and post-test knowledge scores, n=394

<table>
<thead>
<tr>
<th>Knowledge Dimension</th>
<th>Pre Test</th>
<th>Post Test</th>
<th>Mean D</th>
<th>Z Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>General concepts</td>
<td>1.07</td>
<td>0.77</td>
<td>4.32</td>
<td>1.19</td>
</tr>
<tr>
<td>Signs and symptoms</td>
<td>1.03</td>
<td>0.86</td>
<td>3.76</td>
<td>0.66</td>
</tr>
<tr>
<td>Management by lifestyle modification</td>
<td>1.19</td>
<td>0.90</td>
<td>5.68</td>
<td>0.63</td>
</tr>
<tr>
<td>Management by diet modification</td>
<td>0.72</td>
<td>0.84</td>
<td>2.75</td>
<td>0.65</td>
</tr>
<tr>
<td>Management by Yoga, breathing and relaxation</td>
<td>0.48</td>
<td>0.52</td>
<td>1.84</td>
<td>0.45</td>
</tr>
<tr>
<td>Technique</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Knowledge</td>
<td>4.49</td>
<td>1.59</td>
<td>18.35</td>
<td>2.3</td>
</tr>
</tbody>
</table>

**Significance levels:**
- $***$ indicates $p < 0.001$
Dimension wise comparison of pre and post-test reported practice scores, n=394

<table>
<thead>
<tr>
<th>Reported practice Dimension</th>
<th>Pre Test</th>
<th>Post Test</th>
<th>Mean D</th>
<th>Z-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Practice of lifestyle modification</td>
<td>2.88</td>
<td>0.87</td>
<td>4.99</td>
<td>0.72</td>
</tr>
<tr>
<td>Practice of diet modification</td>
<td>3.38</td>
<td>1.12</td>
<td>6.34</td>
<td>1.12</td>
</tr>
<tr>
<td>Practice of Yoga, breathing and relaxation technique</td>
<td>2.46</td>
<td>0.94</td>
<td>5.14</td>
<td>0.68</td>
</tr>
<tr>
<td>Overall Reported Practice</td>
<td>8.72</td>
<td>2.93</td>
<td>16.47</td>
<td>2.52</td>
</tr>
</tbody>
</table>

\[ t=75.07^{***} \]
Scores dense between 2 and 6 in the pre-test & in post-test cluster towards 14 and 20.

Pre-test ‘r’ = 0.327 and Post-test ‘r’=0.365 showing a positive correlation.
Chi square test revealed **no significant association** of post-test knowledge and reported practice scores with following baseline variables.

- Age,
- Religion,
- Type of family,
- Number of children,
- Educational status,
- Occupational status,
- Menstrual status,
- Menstrual cycle pattern and
- Menopausal status.
Discussion & Conclusions

- There was a highly significant difference observed in knowledge and reported practice between pre and post-test.

- A positive correlation was observed which implies as knowledge increased the reported practice also improved.

- NLEP was found to be very effective in improving the knowledge and reported practice.

- No significant association observed between post-test knowledge and reported practice scores with selected baseline variables.

- Basis for Policy Makers: Health promotion and illness prevention Strategies and techniques.

- Currently: No health program for specific health needs of women in midlife.
Nursing Implications

• Provides Evidence for Nurses practicing at Primary Health care setting.

• Study indicates need to strengthen health promotional activities such as Information Education and Communication.

• Foundation for Menopause Education among nurses in India.
Future Directions

✓ Women involved in the study at Neraluru village formed a ‘Women’s Health Club’ locally by their own motivation in 2013.

✓ Making this NLEP popular among nurses so that they can utilize it for an overall health promotion of midlife women.

✓ To inspire Nurse administrators in organizing Women’s Health Clinics addressing specific health needs and problems of menopausal transition.
References


Acknowledgement

• Prof. A.V. Ramen; Supervisor & Co-author

• Prof. Pity Kaul; Director School of Health Sciences, IGNOU

• Dr. Mariamma Philip, Bio-Statistician, NIMHANS, Bangalore
Thank You!

Sonia Sunny
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Slides for QA
Objectives

- **Assess**
  - Pre and post interventional knowledge and reported practice regarding management of menopausal problems among rural women

- **Compare**
  - Pre and post interventional knowledge and reported practice regarding management of menopausal problems among rural women

- **Correlate**
  - Knowledge with reported practice regarding management of menopausal problems

- **Associate**
  - Pre and post interventional knowledge and reported practice regarding management of menopausal problems with selected baseline variables
Hypotheses

H1. There is a significant difference between pre and post test knowledge score regarding management of menopausal problems among rural women.

H2. There is a significant difference between pre and post interventional reported practice score regarding management of menopausal problems among rural women.

H3. There is a positive correlation of knowledge and reported practice score regarding management of menopausal problems among rural women.

H4. There is a significant association of post test knowledge score regarding management of menopausal problems with selected base line variables among rural women.

H5. There is a significant association of post interventional reported practice score regarding management of menopausal problems with selected base line variables among rural women.
Research Methodology

Target Population
• All women, residing at Devanahalli Tehsil, Bengaluru rural district, of Karnataka.
• As per the census data obtained, there were 4754 women in the age group of 45-55 years

Accessible Population
• 1635 women who were in pre menopause and menopause phase who fulfilled inclusive criteria

Research Design
• Quasi experimental one group pretest – post test design

Sampling Technique and Sample size
• Multistage cluster sampling technique
• Sample size calculated through power analysis, 100 women from 3 large clusters and 114 from remaining clusters selected. Total sample size 414 women aged 45-55 years

Intervention
• Intervventional package included health education on life style and dietary modification. Demonstration of yoga, breathing and relaxation technique

Instruments
• 1. Questionnaire to collect demographic data  2. Structured questionnaire to assess knowledge on menopausal problems    3. Structured check list to assess the reported practice on managing menopausal problem   4. Menopause Rating Scale to assess menopausal problems

Analysis and Interpretation
• 1. Descriptive statistics-frequency, Percentage, Mean and Standard Deviation
• 2. Inferential statistics-Paired t’ test for comparison, ‘r’ for correlation-test for assessing relationship and χ² test for determining association
Sampling Criteria

**Sample:** Women residing at rural areas of Devanahalli Tehsil aged 45 and 55 years were the sample for the study.

### Inclusion criteria
- Women aged 45-55 years
- Women interested to undergo specific interventions
- Women who could communicate in Kannada or English.

### Exclusion criteria
- Exposed to similar interventions
- Undergoing gynecological treatment
- Women on treatment for menopausal problems
- Women with hypertension, diabetes, thyroid related disorders
Instruments used

**Part I:** Questionnaire to collect demographic profile

- **Section 1:** Sample profile with baseline variables
- **Section 2:** Gynecological History and MRS
- **Section 3:** History of sexual relationship

**Part II:** Structured questionnaire to assess knowledge regarding management of menopausal problems. It included 20 questions. Each question had one correct answer carrying a score of 1.

**Part III:** Structured checklist to assess reported practice. There were 20 items, each item had ‘yes or no’ dichotomous question.
# Intervention

## Interventional package

<table>
<thead>
<tr>
<th>Nurse lead health education on Lifestyle modifications</th>
<th>Nurse lead health education on Dietary modifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Maintain healthy body weight</td>
<td>• Protein rich diet</td>
</tr>
<tr>
<td>• Regular walking as exercise</td>
<td>• Calcium rich diet</td>
</tr>
<tr>
<td>• Pelvic floor muscle training exercise</td>
<td>• High fiber diet</td>
</tr>
</tbody>
</table>

## Yoga with Relaxation and Breathing Technique

- Suptha Baddha Konasana
- Adhomukha Svanasana
- Sarvangasana
- Viparitha Karani
- Relaxation Technique (Instant Relaxation Technique & Quick Relaxation Technique)
- Breathing Technique (Abdominal breathing & Breathing with feeling)
Sampling Technique

Bengaluru Rural District

New Bengaluru Rural District
- Nelamangala
  - Vijayapura (29 Villages)
    - Chinuvanda Halli (26)
- Devanahalli
  - Kasaba (27 Villages)
    - Kurubarakunte (53)
- Doddaballapura
  - Kundana (29 Villages)
  - Aradesgana Halli (85)
- Hoskote
  - Chennaraya Pattana (33 Villages)
    - Bhattara Marena Halli (68)
    - Booidgere (129)
    - Polana Halli (24)
    - Haraluru (29)

Old Bengaluru Rural District
Data Collection Procedure

Administrative permission on 24th July 2013

Sampling frame of women aged 45-55 yrs. was prepared using Karnataka Electoral List

Each woman was identified at residence with the help of ASHA & AW

Pre-test lasting for 35-45 minutes

Purpose explained through Patient Information Sheet

Written Consent was obtained

Delivery of first session of interventional package on pre-fixed date and time at AW to a group of 12-15 subjects

Home Practice Log Sheet was given to ensure practice of interventions taught. A booster session was given after 2 weeks.

After 4 weeks post test was administered at residence.
Intervention Fidelity

Adherence
- Lesson Plan
  - Specific instruction
  - Teaching & learning activity
  - Teaching aids & technique of evaluation
- Home Practice log sheet

Intervention Fidelity
- Interventionist's Competence
  - 6 months Yoga Instructor's Course (YIC)
  - Was assessed for theoretical & practical aspects of competence and skills
- Subject's competence
  - Eight step method
  - Return demonstration
  - Home practice log sheet

Competence
- Validation by subject experts
- Pilot study