ISNCC - Strengthening the Oncology Nursing Workforce in LMICs to Address the Growing Cancer Burden

Enhancement of Oncology Nursing Education in Low- and Middle-income Countries

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Session ID: 46-T2
I have nothing to disclose.
Presentation Highlights

**WHY** educated nurses can contribute to cancer control?

**WHAT** are the challenges to oncology nursing education in LMICs?

**HOW** to strengthen oncology nursing education in LMICs?
Presentation Highlights

**WHY** educated nurses can contribute to cancer control?

**WHAT** are the challenges to oncology nursing education in LMICs?

**HOW** to strengthen oncology nursing education in LMICs?
Cancer Burden in Low- and Middle- Income Countries

**New Cancer Case**

<table>
<thead>
<tr>
<th></th>
<th>World</th>
<th>LMIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>15.2 million</td>
<td>6.7 million (44.1%)</td>
</tr>
<tr>
<td>2035</td>
<td>24 million</td>
<td>11.2 million (46.7%)</td>
</tr>
</tbody>
</table>

**Cancer Death**

<table>
<thead>
<tr>
<th></th>
<th>World</th>
<th>LMIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>8.9 million</td>
<td>4.8 million (53.9%)</td>
</tr>
<tr>
<td>2035</td>
<td>14.6 million</td>
<td>8.3 million (56.8%)</td>
</tr>
</tbody>
</table>
World Cancer Declaration 2013

Overarching Goal

There will be major reductions in premature deaths from cancer, and improvements in quality of life and cancer survival rates.
World Cancer Declaration 2013

1. Strengthen health systems for cancer control
2. Measure cancer burden & impact of cancer plans
3. Reduce exposure to cancer risk factors
4. Universal coverage of HPV/HBV vaccination
5. Reduce stigma & dispel myths
6. Universal access to screening & early detection
7. Improve access to services across the care continuum
8. Universal availability of pain & distress management
9. Improve education & training of professionals

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UICC, 2016
World Cancer Declaration 2013

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8. Universal availability of pain & distress management
9. Improve education & training of professionals

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UICC, 2016
Global Action Plan for NCDs

WHO recommended that nations “[optimize] the scope of nurses’ and allied health professionals’ practice to contribute to the prevention and control of non-communicable disease, including addressing barriers to that contribution.”
Importance of Oncology Nursing Education in Reducing the Cancer Burden

- Hui et al., 2015

Prevention
- Mutebi, Wasike, Mushtaq, Kahie, & Ntoburi, 2013
- Rice, Hartmann-Boyce, & Stead, 2013

Early Detection

Treatment & Symptom Management
- Chan, Richardson, & Richardson, 2011
- Coolbrandt et al., 2014

Survivorship
- Kim et al., 2011
- Park, Bae, Jung, & Kim, 2012
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Nursing interventions for smoking cessation

[Innovation Review]

Nursing interventions for smoking cessation

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Editorial group: Cochrane Tobacco Addiction Group.

Publication status and date: New search for studies and content updated (no change to conclusions), published in Issue 8, 2013.

Review content updated as up-to-date 27 June 2013.

Citation: Rice VH, Hartmann-Boyce J, Stead LF. Nursing interventions for smoking cessation. Cochrane Database of Systematic Reviews 2013, Issue 8, Art. No., CD001188, DOI: 10.1002/14651858.CD001188.pub4.

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ABSTRACT

Background
Healthcare professionals, including nurses, frequently advise people to improve their health by stopping smoking. Such advice may be brief, or part of more intensive interventions.

Objectives
To determine the effectiveness of nursing-delivered smoking cessation interventions.

Search methods
We searched the Cochrane Tobacco Addiction Group specialized Register and CINAHL in June 2013.

Selection criteria
Randomized trials of smoking cessation interventions delivered by nurses or health visitors with follow-up of at least six months.

Data collection and analysis
Two authors extracted data independently. The main outcome measure was abstinence from smoking after at least six months follow-up. We used the most rigorous definition of abstinence for each trial, and biochemically validated data if available. Where statistically and clinically appropriate, we pooled studies using a Mantel-Haenszel fixed-effect model and reported the outcome as a risk ratio (RR) with a 95% confidence interval (CI).

Main results
Forty-nine studies met the inclusion criteria. Pooling 35 studies (over 17,000 participants) comparing a nursing intervention to a control or to usual care, we found the intervention to increase the likelihood of quitting (RR 1.29, 95% CI 1.20 to 1.39). In a subgroup analysis the estimated effect size was similar for the group of seven studies using a particularly low-intensity intervention but the confidence interval was wider. There was limited indirect evidence that interventions were more effective for hospital inpatients with cardiovascular disease than for inpatients with other conditions. Interventions in non-Hospitalized adults also showed evidence of benefit. Eleven studies comparing different nurse-delivered interventions failed to detect significant benefit from using additional components. Six studies of nurse counseling on smoking cessation during a smoking health check or as part of multifactorial secondary prevention in general practice (not included in the main meta-analysis) found nursing interventions to have less effect under these conditions.

Nursing interventions for smoking cessation (Review)

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Importance of Oncology Nursing Education in Reducing the Cancer Burden

- Prevention
- Early Detection
- Treatment & Symptom Management
- Survivorship

Mutebi, Wasike, Mushtaq, Kahie, & Ntoburi, 2013
Rice, Hartmann-Boyce, & Stead, 2013

ABSTRACT

Objective. To test the hypothesis that trained nurse endoscopists are not inferior to medical endoscopists in performaing screening colonoscopy.

Patients and Methods. A prospective, randomized, single-blind, multi-center study comparing nurse endoscopists and medical endoscopists in performing screening colonoscopy. The nurse endoscopists had been trained according to the British Society of Gastroenterology and Gastroenterology Nurses and Technicians guidelines and had completed at least 140 colonoscopic procedures prior to the study. The primary endpoint was the colonoscopy detection rate. Secondary endpoints included the cecal intubation rate, biopsy rate, complication rate, patient pain and satisfaction scores.

Results. We enrolled and analyzed a total of 731 patients over a 15-month period. At least one adenoma was found in 159 (43.6%) of 367 patients by nurse endoscopists and 120 (32.7%) of 367 patients by medical endoscopists and a proportion difference of 11.1% compared with the medical endoscopists (95% CI 1.4% to 18.8%). The withdrawal time was, however, significantly longer among nurses (29 min to 23 s, p=0.011). After adjusting for differences in severity, colonoscopists by nurses was associated with a lower adenoma detection rate (0.075, 95% CI 0.31 to 0.725). Nurse endoscopists had a lower cecal intubation rate (92.3% vs 96%), lower biopsy pain and satisfaction scores and a higher rate of patient acceptability.

Conclusions. In this pragmatic trial, nurses can perform screening colonoscopies but require a longer procedural time to achieve a comparable adenoma detection rate as medical endoscopists.

Trial registration number: NCT00939156

Hui et al., 2015

SIGNIFICANCE OF THE STUDY

What is already known about this subject?
- Nurse endoscopists are well-established in the UK and many European countries but are not recognized in America and Asia.
- There are preliminary data showing that nurses can acquire colonoscopic skills and perform colonoscopy as safely and accurately as medical endoscopists.
- Prospective surveys showed that nurse endoscopists were capable of performing colonoscopy up to international standards.
- What are the new findings?
- Endoscopy nurses who have received a structured training programme and performed at least 40 colonoscopies under supervision can perform colonoscopy up to international standards.
- Nurses require a longer procedural time to achieve a comparable adenoma detection rate as medical endoscopists.
- Nurses had a high acceptance rate by patients.
- Medical endoscopists can provide adequate supervision to nurse endoscopists in a parallel room design,
- How might it impact on clinical practice in the foreseeable future?
- Nurses can be trained to safely perform screening colonoscopy, but they may take longer to achieve a comparable adenoma detection rate and hence a longer withdrawal time.
- This has implications on resource allocation.


Comparison of colonoscopic performance between medical and nurse endoscopists: a non-inferiority randomised controlled study in Asia

Aric J Hui,1 James Y Lau,2 Phyllis Y Lam,3 Almara O M Chu,1 Alice S H Fan,3 Thomas Y T Lam,2 Yee-Kit Tse,3 Raymond S Y Tang,2 Siu W C Ng,2 Justin C Y Wu,2 Jessica Y L Ching,2 Martin C S Wong,2 Francis K L Chan,2 Joseph Sung2
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**WHY** educated nurses can contribute to cancer control?

**WHAT** are the challenges to oncology nursing education in LMICs?

**HOW** to strengthen oncology nursing education in LMICs?
Challenges to Oncology Nursing Education, Training and Practice

Lack of educational pathways for specialization in oncology nursing
Challenges to Oncology Nursing Education, Training and Practice

2

Lack of legislation to consolidate training pathways for specialized nursing roles
Challenges to Oncology Nursing Education, Training and Practice

3

Insufficiency of continuing education
Challenges to Oncology Nursing Education, Training and Practice

4

Challenges in recruiting professionals to oncology nursing due to practice environment
Challenges to Oncology Nursing Education, Training and Practice

- Lack of educational pathways
- Insufficient continuing education
- Legislation
- Challenges in recruiting professionals
Presentation Highlights

**WHY** educated nurses can contribute to cancer control?

**WHAT** are the challenges to oncology nursing education in LMICs?

**HOW** to strengthen oncology nursing education in LMICs?
Incorporate basic cancer content into pre-service nursing training curricula
2

Develop nursing faculties in LMICs
3

Establish a mechanism for sharing oncology nursing programme between LMICs and HICs
Strategies to Strengthen Oncology Nursing Education in LMICs

4

Promote the involvement of cancer-related international organizations
Strategies to Strengthen Oncology Nursing Education in LMICs

5

Require organizations to follow best practices
Strategies to Strengthen Oncology Nursing Education in LMICs

Ensure programme sustainability through high-level in-country involvement and interdisciplinary collaboration.
Strategies to Strengthen Oncology Nursing Education in LMICs

- Include basic cancer content in nursing curricula
- Develop nursing faculties
- Establish a mechanism to share nursing programme
- Involvement of international organizations
- Follow best practice
- Ensure in-country collaboration

Asian Oncology Nursing Society
Summary

Oncology nursing education in LMICs should be further developed, in responding to the increasing cancer burden in these countries.
Summary

Strategies

- Include basic cancer content in training
- Develop nursing faculties
- Share oncology nursing programme
- Involvement of international organizations
- Follow best practice
- Ensure in-country collaboration
Summary

With the support from physicians, policy makers and governmental officials of LMICs, these recommendations would be implemented to enhance the specialized training of oncology.
THANK YOU!

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References


References


