



Leading multidisciplinary cancer and palliative care research: the role of nurses



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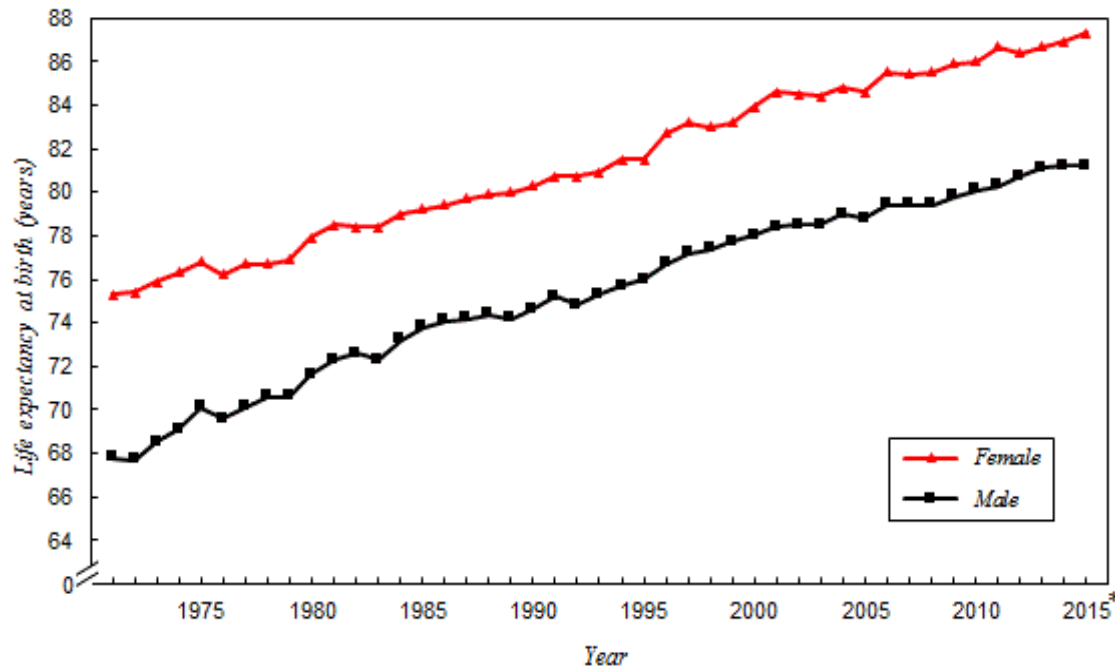


Hong Kong

Life Expectancy at Birth (Male and Female), 1971 – 2015

Outliving the rest of the world

The life expectancies at birth for both sexes have steadily increased during the past 45 years, from 67.8 years for males and 75.3 years for females in 1971 to 81.2* years and 87.3* years respectively in 2015.

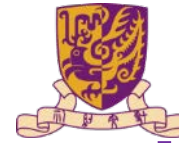


- Males: 81.2
- Females: 87.3

Scientific Advances in health care



- Personalized medicine
- Pharmacotherapeutics
- Complementary therapy
- Behavioral therapy
- Education
- Counseling
- Peer-to-peer support



An example: personalized medicine

- **Current strategies**

- Ambulatory settings
- Oral agents
- Self-administration
- Self care expectations
- Family caregiving model

- **Challenges**

- More investigation to assess options
- More complex decision-making
- More home-based and chronic care
- More family caregiving burden
- More comorbid debilitating conditions

Chronicity and Dependency



4% increase of cancer
Incidence annually in
Hong Kong

Dependency becomes
a great concern

- Family carer burden
- Caregiving needs
- Societal costs

Palliative Care and chronicity



Pallium: to cloak, to not address the underlying causes, but to eliminate the effects.

An approach that improves the quality of life of patients and their families facing problems associated with life-threatening illnesses through prevention and relief of suffering by early identification and impeccable assessment and treatment of pain and other physical, psychological and spiritual problems"

WHO 2002

- The promotion /provision of good living and dying
- Not restricted to dying patients
- Not restricted to cancer or cardiac patients
- Not restricted to hospice settings



When?

An integration of cancer and palliative care



2015 Quality of Death Index in 80 countries - Lien Foundation

UK ranked 1st

Australia ranked 2nd

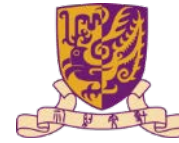
Hong Kong ranked 22th
(1 palliative care bed/7000 patients)

China ranked 71st
(economic growth but focus on curative approach)



Cancer and Palliative care research with high priority

- Early diagnosis, assessment and prevention of symptoms
- Symptom management and comfort measures
- Empowerment of self care and caregiving
- Patient empowerment: Advance care planning



Cancer and Palliative care research

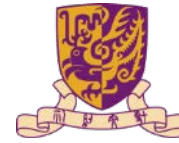
Realize older adults are primary population

- Younger adults and children are special populations
- Vulnerability is different in populations

Design research that captures current needs

- Science must represent technological advances
- Science must capture current settings of care

A multi-disciplinary approach is a must



Challenge of multidisciplinary research

- basic science, clinical research and population approaches
- multiple skill and knowledge sets



Selected study: Early detection of inflammatory process for patients with silicosis (PI: Carmen Chan)

Silica: human group I lung carcinogen

What is the cutting edge of our study?



What is the cutting edge of our study?

- Leading a team of molecular scientist, physician, statistician
- We hypothesize that the pro-inflammatory and fibrotic events are immediately upon sublethal exposure of respirable silica in macrophages, and it is a complex molecular events involving abundant of gene partners.
- use RNA-Seq (a sequence-based analysis) can figure out a detailed identification and characterization of the immediate proinflammatory and pathogenic fibrotic molecular events upon silica exposure

Significance of this study?



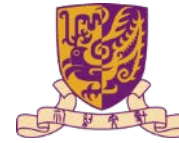
- Data set can **identify novel and significant biomarkers** for early prognosis and strategies
- Reliable health surveillance tool with high specificity and sensitivity
- Modifications of current exposure condition to prevent the inflammatory process
- Prevention of lung diseases

Selected study:

Chinese medicinal gargle for mucositis

**(leading a team of TCM nurses, TCM practitioner, Pharmacist,
Biomedical scientist) (PI: KM Chow)**





Pilot testing in non-cancer patients

- **Regimen:** *baphicacanthus cusia* (板藍根), *cassia tora* (决明子), *lonicera japonica* (金銀花), *taraxacum mongolicum* (蒲公英), *gleditsia sinensis* (皂角刺), *lilium brownii* (百合) and *zanthoxylum nitidum* (两面針) – three times a day for 6 weeks.
- Compliance rate of 96%
- Reducing the severity of oral ulcer,
- Minimizing the pain level caused by the ulcer
- Fastening the healing of oral ulcer.
- Changes in antioxidant (Serum superoxide dismutase) and anti-inflammatory biomarkers (serum cytokines)



Community: E-health in palliative research

Leading a team of IT, dietitian, TCM practitioner, social worker, psychologist

- Interactivity
- Time efficiency
- Wide geographic and desirable anonymity

Selected projects:

E-health intervention for family caregivers of pediatric cancer patients (PI: Doris Leung/Winnie Tang)



- ➔ Advantages:
- Convenience
 - Anonymity
 - Interactive
 - Easy update

Intervention: Informational website



a) Disease knowledge

(National Cancer Institute + local physician)

b) Food regimen

(a registered TCM practitioner and a dietitian)

c) Practical information

(a registered nurse and physiotherapist)

d) Supportive information

(a social worker and clinical psychologist)

CUHK: Cancer & palliative care research group



Mission statement






To **relieve the global burden of cancer** and **advanced stage diseases** by increasing access to and utilization of **evidence-based knowledge** that nurses can employ to improve the **health and well-being** of people.

1. Pediatric oncology,
2. Prevention of cancer and health promotion
3. Survivorship
4. Basic research



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Thank You