Using a Social Determinants of Health (SDOH) Approach in the Provision of Palliative Care

2017 Canadian Hospice Palliative Care Association Conference

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We do not currently have an affiliation (financial or otherwise) with a commercial entity.
Objectives

1. Identify how SDOH impact the delivery of palliative care service in underserved populations

2. Review the barriers and potential bias inherent in the existing design of palliative care services

3. Build capacity among clinicians to identify and address key SDOH issues in palliative care delivery through the review of a newly developed tool
Our common interest

How to we optimize the provision of palliative care to those most vulnerable?
Introductions

• Who is in the room?
  • Name
  • Profession
  • Organization
  • Location (City/Country)
  • Experience with SDOH issues
What makes us sick?

https://www.cma.ca/En/Pages/health-equity.aspx
People are finally learning about the SDOH

Renewed interest in the “upstreamist” movements

What do we know of those made vulnerable by unmet SDOH at the end of life?
What does a patient who is likely to get access to timely and good quality PC look like?

How would you describe them?
SES Impact (Socio-Economic Status)

Top 5 Income Studies

- We conducted a literature search
- Found a shortage of good evidence on the topic of the impact that SDOH have on PC
- The studies that do exist focus on socio-economic status (SES)
Exploring differences in referrals to a hospice at home service in two socio-economically distinct areas of Manchester, UK

Malcolm Campbell  School of Nursing, Midwifery and Social Work, University of Manchester, Manchester, UK
Gunn Grande  School of Nursing, Midwifery and Social Work, University of Manchester, Manchester, UK
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Ann-Louise Caress  School of Nursing, Midwifery and Social Work, University of Manchester, Manchester, UK
Dai Roberts  St Ann’s Hospice, Manchester, UK
Quantitative, retrospective cohort study

- **P:**

- **I:**
  - Referral rates to hospice at Home Palliative Care services

- **C:**
  - Comparison of two distinct SES areas (Salford, Trafford), which feature identical Palliative Care services (St Ann’s)

- **O:**
  - Though cancer incidence and mortality is higher in low SES districts, referral rates to hospice & home care were lower in low SES Trafford (4.5, SD 1.67) vs Salford (6.27, SD 1.67)
  - Differences in referral rates were significantly associated with all SES variables except for:
    - age 60-74 years old
    - 75+ years old
    - ethnically white
    - % of patients aged 16-74 with secondary level qualifications
    - % of privately rented households
SUMMARY OF FINDINGS

- SES factors, not cancer mortality or service provision, predicts referrals to hospice at home

- Inequalities of referral were strongly correlated to global deprivation and discrete deprivation indicators at the population level
Treatment decisions and discontinuation of palliative chemotherapy near the end-of-life, in relation to socioeconomic variables

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Retrospective chart review

P:
- Deceased patients with disseminated cancer and recorded in death in 2009, N=346

I:
- Assessment of charts in relation to demographic and clinical variables and documented treatment decisions

C:
- Comparison of socioeconomic variables vs Palliative Chemotherapy treatment decisions

O:
- Palliative Chemotherapy offered in 54% of cases (only 73% considered eligible for 1st or 2nd-line)
- 32% received Palliative Chemotherapy in last month of life
- Variables associated with higher probability of treatment & closer to death:
  - younger patients, (p=0.002), those with young children (P<0.001)
- Variables associated with higher probability of treatment:
  - high education level (p=0.001), living with a partner (p=0.001), female gender (p=0.023), ethnicity of non-European origin (p=0.031)
SUMMARY OF FINDINGS

• Socio-economic variables associated with more treatment being offered including: patient being a younger age, level of education, presence of children and/or partner, gender, and ethnicity play an important role in treatment decisions
The Impact of Socioeconomic Status on Survival After Cancer in the United States

Findings From the National Program of Cancer Registries Patterns of Care Study

© 2008 American Cancer Society
DOI 10.1002/cncr.23567
Published online 25 June 2008 in Wiley InterScience (www.interscience.wiley.com).

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Tiefu Shen, MD, PhD
Scott Van Heest, MS
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Retrospective study

- **P:**

- **I:**
  - SES factors on disease, treatment and survival

- **C:**
  - Comparison of disease stage, treatment and 5-year mortality rates vs income, education via census data

- **O:**
  - For all 3 CA’s, low SES associated with:
    - more advanced disease stage
    - less aggressive treatments
  - For all 3 cancer sites, low SES was a much stronger predictor of mortality among individuals aged <65 years and among individuals from racial/ethnic minority groups.
SUMMARY OF FINDINGS

- Low SES is a risk factor for all-cause mortality after diagnosis of cancer, largely because of a later-stage diagnosis & less aggressive treatment

- SES is an underlying factor in cancer disparities
Original Article

Economic Impact of Advanced Pediatric Cancer on Families

Kira Bona, MD, MPH, Veronica Dussel, MD, MPH, Liliana Orellana, PhD, Tammy Kang, MD, MSCE, Russ Geyer, MD, Chris Feudtner, MD, PhD, MPH, and Joanne Wolfe, MD, MPH

Department of Medicine (K.B., J.W.), Boston Children’s Hospital; Department of Pediatric Hematology/Oncology (K.B., J.W.) and Department of Psychosocial Oncology and Palliative Care (V.D., J.W.), Dana-Farber Cancer Institute; and Harvard Medical School (K.B., J.W.), Boston, Massachusetts; Institute for Clinical Effectiveness and Health Policy (V.D.), Buenos Aires, and Institute of Calculus (L.O.), School of Sciences, University of Buenos Aires, Buenos Aires, Argentina; The Children’s Hospital of Philadelphia (T.K., C.F.), Philadelphia, Pennsylvania; and Division of Pediatric Hematology/Oncology (R.G.), Seattle Children’s Hospital; Fred Hutchinson Cancer Research Center (R.G.), and University of Washington (R.G.), Seattle, Washington, DC, USA
Cross-sectional survey

- **P:**
  - 86 parents of children with cancer

- **I:**
  - Economic impact on families with children with advanced cancer

- **C:**
  - none

- **O:**
  - parental work disruptions, 94%
  - one parent quit job in family, 42%
  - described child’s advanced cancer as financial hardship, 27%
  - substantial work disruptions for families in ‘poverty’, 100%
  - previously non-poor families that became ‘poor’, 15%
SUMMARY OF FINDINGS

- Economic impact of pediatric advanced cancer on families is significant at all income levels

- Poorer families suffer disproportionate losses
Association of Hospice Patients’ Income and Care Level With Place of Death

Joshua S. Barclay, MD; Maragatha Kuchibhatla, PhD; James A. Tulsky, MD; Kimberly S. Johnson, MD
Retrospective study

P:
- Hospice patients admitted to routine care in a private residence from Jan 1, 1999 to Dec 31, 2003
  - N=61,063
- for-profit hospice provider; VITAS healthcare, operating 26 programs in 8 US states

I:
- Examine relationship between income and transfer from home before death & interaction between income and level of hospice care as a predictor of transfer from home in patients admitted to routine home hospice care

C:
- Transfer vs non-transferred patients

O:
- 22.61% transferred from home to another location (e.g., inpatient hospice or nursing home) with hospice care before death; patients transferred had:
  - lower mean median household income (p<0.001)
  - less likely to receive continuous care (p<0.001)
- for patients not receiving continuous care, odds of transfer from home before death increased with decreasing median annual household incomes
SUMMARY OF FINDINGS

- patients with limited resources may be less likely to die at home

- especially if not able to access needed support beyond what is available with routine hospice care
OVERVIEW: SES & Access to Palliative Care

- Positive correlations to access:
  higher education level
  higher income
  higher social class

- Negative association to access:
  Being a male
  Unmarried
  living alone
  >75 or >85 years old

- Lower SES results in:
  Poorer families of pediatric cancer patients suffer disproportionate loses
  Later diagnosis
  Receive less aggressive treatments
  Reduces chance of dying at home
Ontario Data
Impact of Income on Palliative Care Services
Focus on equity

Palliative care patients living in the poorest neighborhoods in Ontario were least likely to get a home visit from a doctor (29.4 versus 40.2%)

Health Quality Ontario: Palliative Care at the EOL (2016)
PC Patients living in the poorest neighborhoods in Ontario are more likely to have more unplanned visits to the ED (65.4 vs 59.8%)
PC Patients living in the poorest neighborhoods in Ontario are more likely to get admitted to hospital in their last 30 days of life (64.5 vs 58.9%)
PC Patients living in the poorest neighborhoods were more likely to die in hospital than those in the richest (68.5 vs 61.5%)
CONCLUSION: Great impact on the overall quality of palliative care services……

Your postal code
Health Quality Ontario: Palliative Care at the EOL (2016)

State of the Union
The good news from a patient-centered and hospital occupancy/health system cost perspective:

- Patients receiving palliative home care reduced their likelihood of dying in a hospital by 50%

Health Quality Ontario: Palliative Care at the EOL (2016)
Key findings on care at the end of life in Ontario

Of all Ontarian’s that died (2014-2015)
- 57% received some PC services
- 48% began PC in their last month
- 65% died in hospital
- 26% spent more that half of that last month in hospital
- 63% had unplanned ED visit in last month
- 43% received a home PC service
- 35% received a home visit from an MD in last month

Health Quality Ontario: Palliative Care at the EOL (2016)
3 Essential Perspectives

1. Access to palliative care
2. Availing of palliative care
3. Quality of palliative care
Or Restated……………

1. • Determinants of access to palliative care

2. • Determinants to the utilization of palliative care

3. • Determinants to receiving good quality PC
What prevents us from accessing/using and receiving good quality palliative care from the perspective of SDOH?

1. Income and Income Distribution
2. Education
3. Unemployment and Job Security
4. Employment and Working Conditions
5. Early Childhood Development
6. Food Insecurity
7. Housing
8. Social Exclusion
9. Social Safety Network
10. Health Services
11. Aboriginal Status
12. Gender
13. Race
14. Disability
Blinded by what we don’t see!
For every one homeless person you see in Canada

23 others are vulnerably housed and struggle on a daily basis to meet their basic needs

Def. vulnerably housed- low to moderate income families who spend >50% of their income on rent

https://www.theglobeandmail.com/opinion/canadas-hidden-emergency-the-vulnerably-housed/article1314757/?arc404=true
What do we see?

What do we believe?
Our attitudes will shape how we act in relation to others.

¿Could my attitudes towards the patient be based on something to do with my own experiences, anxieties, fears?

Self-reflection needs to be part of our training

Attitudes change over time ………………..
# A comparator of the 5 top causes of Death

<table>
<thead>
<tr>
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<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Chronic Liver</td>
</tr>
<tr>
<td>Cancer</td>
<td>15%</td>
</tr>
<tr>
<td>30%</td>
<td>Cancer</td>
</tr>
<tr>
<td>13%</td>
<td>Heart Disease</td>
</tr>
<tr>
<td>20%</td>
<td>12</td>
</tr>
<tr>
<td>Cerebrovascular Disease</td>
<td>8%</td>
</tr>
<tr>
<td>6%</td>
<td>AIDS</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Respiratory Disease</td>
<td>4%</td>
</tr>
<tr>
<td>Accidents</td>
<td>4%</td>
</tr>
<tr>
<td>Age Range</td>
<td>Mortality Rate Ratios for men using homeless shelter in Toronto to men in the city’s general population</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>18-24</td>
<td>8.3</td>
</tr>
<tr>
<td>24-44</td>
<td>3.7</td>
</tr>
<tr>
<td>45-64</td>
<td>2.3</td>
</tr>
</tbody>
</table>

The mean age of men in homeless shelter is 36.1 years

Hwang, SW Mortality among men using homeless shelters in Toronto, ON. JAMA. 2000; 283: 2157-2157
P.E.A.C.H.  (an example)

- Palliative Education And Care for the Homeless
  - A program of Inner City Health Associates & St Michael’s Hospital
  - Mobile
  - Street & Shelter-based
  - Interdisciplinary, Intensive Case Management & integration with ‘home care’
  - Compassionate community
Poverty in Ontario refers to people living in Ontario deprived of or facing serious challenges in meeting basic needs such as shelter, food, clothing and other essential needs.
Two theories of poverty:

1) Poverty is individual - people are in poverty because they are lazy, uneducated, ignorant, or otherwise inferior in some manner.

1) Poverty is structural - people are in poverty because they find themselves in holes in the economic system that deliver them inadequate income.
### Example of structural poverty

#### Social Assistance Recipients

<table>
<thead>
<tr>
<th>Poverty Line</th>
<th>Annual Income 2011</th>
<th>Basic Income Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ontario Works (OW)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single Adult</td>
<td>$19,930</td>
<td>$621 x 12 = $7,452</td>
</tr>
<tr>
<td>Lone parent with one child (under 6 yr)</td>
<td>$28,185</td>
<td>$1,455.15 x 12 = $17,461.80</td>
</tr>
<tr>
<td><strong>Ontario Disability Support Program (ODSP)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single Adult</td>
<td>$19,930</td>
<td>$1,086 x 12 = $13,032</td>
</tr>
</tbody>
</table>

Updated March 2014
Total benefit income for those who depend on Ontario Works (OW) and the Ontario Disability Support Program (ODSP) locks nearly 895,000 Ontarians into deep poverty.

Mean Avg age 45 homeless in Toronto

MEDIAN AGE AT DEATH, 2004-12, WITH MEDIAN FAMILY INCOME | SOURCES: STATISTICS CANADA AND THE ONTARIO REGISTRAR-GENERAL
Crude mortality rate in TO homeless 875

Mortality rate for Cancer 169

Societal Cost of home-based palliative care ........ $25000/month

- $17,500/month (time cost) lost wages and leisure time
- $6,400/month Health care systems cost
- $700/month out-of-pocket expenses
- $170 3rd party insurer cost

UNPACKING VULNERABILITY
We often think about vulnerability as a label, as a way of defining a group - the homeless, senior with dementia. This is not incorrect but we need to dig deeper and ask the question: Vulnerable to what?

Once we do that we can better understand vulnerability as a universal human condition and one that is experienced differently based on a number of factors.

What factors in one’s experience might be able to change the degree of vulnerability one might experience in say Palliative Care?
Risk Chain Model to assess vulnerability

Risk Factors that increase likelihood of undesirable outcomes → Risk Response Options to manage the risk → Outcome

Risk Chain Model to assess vulnerability

Risk Chain Model to assess vulnerability

Risk Chain Model to assess vulnerability

Risk Factors that increase likelihood of undesirable outcomes

Risk Response Options to manage the risk

Outcome

Gender
Unmarried
living alone
>75 or >85 years old
Lower education level
Low income
Low social class

Little to no access to PC

Created vulnerability

Vulnerable groups

Vulnerable individuals

Made to feel vulnerable

Are people dying vulnerable….
Just because they are dying?
Risk Chain Model to assess vulnerability

Risk Factors that increase likelihood of undesirable outcomes:
- Nobody’s fault
  - Orphan disease (chance)
  - Multiple complex care needs
- Choice
  - Refusal
- Unmet social obligations
  - Low SES
  - Minority status

Those who may be less able to safeguard their own needs and interests adequately:
- SES poor
- No housing
- Mental health issues

Risk Response Options to manage the risk

Outcome
Inadequate EOL care in terms of availability/utilization/quality

Ask your patient & connect them with resource
Others working on this issue

If I have seen further than others, it is by standing upon the shoulders of giants.

(Isaac Newton)
Paediatric palliative care and the social determinants of health: Mitigating the impact of urban poverty on children with life-limiting illnesses


Poverty and pediatric palliative care: what can we do?


“ITHELLPS” Tool

From office tools to community supports: The need for infrastructure to address the social determinants of health in paediatric practice.


Centre for Effective Practice

- **Focus:** clinical care gaps in primary care
- **NFP:** close gaps by developing relevant, evidence-based interventions
- Identify barriers to optimal practice & produce practical solutions
- Relevant regardless of clinical setting, training or background
Our proposed pilot study

Look at 2 palliative care clinics: 1 at a Regional Cancer Centre and the other at a large community hospital seeing all palliative referrals

Invite all new patients (PPS>40) to fill in a basic questionnaire to explore a set of specific SDOH and have their PC physician review this with them.

Make referral to Social Work as needed

Assess impact of interventions and impact on the physician-patient relationship
Your wellbeing and health rely on more than just the treatments and medicine we can provide. Food, transportation, money, a safe home setting, and understanding all aspects of your care are important things we want to discuss with you as we may be able to help and advocate to reduce inequities that may exist.

Please take a few moments to consider each of the following statements and think about how they impact you at this time.

Filling out this form is completely voluntary, or if you’d rather wait to talk with a member of the health care team about this before filling it out please let us know.

Although we are asking you about these issues at your first visit, we understand situations can change and if they do, please talk to us.

Thank you,
### Patient Survey

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have trouble paying my bills on a monthly basis</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I have trouble paying for my medicines</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I have concerns about my current housing situation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I worry about/ have trouble paying for the kind of food I want to eat</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I find it difficult to get to my medical appointments</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I find it difficult to understand some of the medical information I am given</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Physician Review

### Social Determinants of Health

**Secondary Assessment/Data Collection**

- **Patient Name:** ________________________
- **Date:** ________________________
- **PC Physician:** ________________________

Review patient assessment and address any area where 1, 2 or 3 is circled

<table>
<thead>
<tr>
<th>SDOH</th>
<th>Points to review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Money</td>
<td>Employment status/ Income sources/ What areas of life does lack of finances affect the most.</td>
</tr>
<tr>
<td>Drug/Medicine</td>
<td>Do they have a drug plan? What gets reimbursed, what doesn’t?</td>
</tr>
<tr>
<td>Housing</td>
<td>Rent/Own? Why is this vulnerable to you? What about when you are weaker?</td>
</tr>
<tr>
<td>Food</td>
<td>Location/Finance…. How easy is it for you to feed yourself and family? Is access to healthy food an option</td>
</tr>
<tr>
<td>Transportation</td>
<td>Drive or Public Transport? Travel time?</td>
</tr>
<tr>
<td>Health Literacy</td>
<td>ESL/Hearing/Need for interpreter?</td>
</tr>
</tbody>
</table>

### Assessment Outcome

- [ ] Refer to Social Work
- [ ] Revisit with Patient on ________________________
- [ ] No action Required
Questions and Discussion

• What are your thoughts on the proposed tool?
• Anything we are missing?
• Anything we could add or improve?
• What are your concerns or feedback?
Please Complete the Evaluation Form