Educating health professionals to address the social determinants of health

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Introduction

Social determinants of health (SDH)

“The social determinants of health (SDH) are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems.” (WHO, http://www.who.int/social_determinants/en/).
Introduction

SDH and health

“The social determinants of health are mostly responsible for health inequities - the unfair and avoidable differences in health status seen within and between countries.” (WHO, http://www.who.int/social_determinants/sdh_definition/en/)

“Can we speak of the ‘natural history’ of any of these diseases without addressing social forces, including racism, pollution, poor housing, and poverty, that shape their course in both individuals and populations? Does our clinical practice acknowledge what we already know – namely, that social and environmental forces will limit the effectiveness of our treatments?” (Farmer et al., 2006)
Introduction

Importance of teaching SDH to health professionals

“Undergraduate medical education, with its primary emphasis on proximate health determinants such as specific pathogens, individual risk factors, and medical treatments, has been slow to incorporate a large body of knowledge about the social determinants of health. However, recent research has concluded that social conditions may have a greater impact on health and disease than proximate factors that have long been the focus of medical education.” (O’Brien, 2014)
Aim of the background paper

To explore how the education of health professionals is currently addressing the social determinants of health in and with communities
Methods

Systematic literature review
- database search
- step-wise screening and analysis using a screening instrument
  two independent researchers
Step 1: Identification of relevant papers

Records identified through database searching (n = 297)

Additional records identified through other sources (n = 4) → Records excluded based on title and abstract (n = 100)

Full-text articles assessed for eligibility (n = 201)

Full-text articles excluded (n = 168)

Included articles (n = 33)
Step 2: data extraction from all selected papers

### EVALUATION ARTICLES IOM STUDY

**Article [Number, Author, Year]**

<table>
<thead>
<tr>
<th>TYPE OF ARTICLE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Full paper - Conference abstract -</td>
</tr>
<tr>
<td>Content</td>
<td>Research - Only descriptive -</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of school</td>
</tr>
<tr>
<td>Location of school</td>
</tr>
<tr>
<td>Name of program</td>
</tr>
<tr>
<td>Location of training (which community)</td>
</tr>
<tr>
<td>Duration of training: Total</td>
</tr>
<tr>
<td>Community learning part</td>
</tr>
<tr>
<td>Program in curriculum</td>
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<tr>
<td>Participants level</td>
</tr>
<tr>
<td>Type of health profession</td>
</tr>
<tr>
<td>Number</td>
</tr>
<tr>
<td>Start of program</td>
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</table>

**Described goal of training**

**Framework/model**

- SDH explicit aim: Yes / No
- Focus on SDH: Central / Marginal
- References to SDH:  |
- SDH discussed as outcome

**Content of training (components)**

**IF RESEARCH ARTICLE**

<table>
<thead>
<tr>
<th>Type</th>
<th>Quantitative / Qualitative / Mixed</th>
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</thead>
<tbody>
<tr>
<td>Data</td>
<td></td>
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<tr>
<td>Research topic</td>
<td></td>
</tr>
<tr>
<td>Number of participants</td>
<td></td>
</tr>
<tr>
<td>Main findings (if relevant) and not in IOM questions</td>
<td></td>
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<tr>
<td>Strength of study limitations</td>
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</tbody>
</table>

**IOM QUESTIONS**

- Was education goal obtained?
- Was the program successful?
- Where there any difficulties?
- Might the training be replicated?
- Any information about the cost?
- Are there any anecdotes that may be included?
- Suggestions formulated by authors

**REFERENCES TO BE CHECKED: Yes / No**

**ESTEEMED VALUE FOR PRESENT STUDY:**

**REMARKS:**
Main findings

• General descriptives of the identified programs:
  number, location, student group, position in the curriculum

• Content of the programs:
  aims, theoretical framework, pedagogical approach

• 3 programs at a glance
Main findings

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  number, location, student group, position in the curriculum

• Content of the programs:
  aims, theoretical framework, pedagogical approach

• 3 programs at a glance
General descriptives

Only 33 papers were found describing training programs for health professional students addressing the SDH in/with the community

(reporting on 32 different programs)
General descriptives

Only 33 papers were found describing training programs for health professional students addressing the SDH in/with the community

(reporting on 32 different programs)

The vast majority of the programs are from the US (25), Canada (5), Australia (1), Serbia (1), Belgium (1)
General descriptives

The programs aim at:

• medicine students (10)
• nursing students (8)
• nurse practitioner students (1)
• pharmacy students (3)
• maternal & child health students (1)
• art therapy students (1)
• a interprofessional group of students incl. law students and students from social sciences (8)
General descriptives

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• pharmacy students (3)
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• art therapy students (1)
• a interprofessional group of students incl. law students and students from social sciences (8)

• undergraduate – graduate – PhD students, or a mix
General descriptives

Large variation in the duration/intensity of the programs!

- Total duration of program / continuum in the curriculum
- Intensity (nb hours/week)
- Total time / proportion of time spent in the community
Aim:
To prepare future physicians to effectively care for patients in urban, underserved settings;
To promote community health;
To shape the system to improve the public’s health.

Students:
Medical students

Duration:
At least 10 hours/month through the first 3 years of medical school

Content:
4 hours core sessions
<table>
<thead>
<tr>
<th>Month</th>
<th>First year</th>
<th>Second year</th>
<th>Third year</th>
</tr>
</thead>
<tbody>
<tr>
<td>July</td>
<td>—</td>
<td>—</td>
<td>Reorientation: progress presentations</td>
</tr>
<tr>
<td>August</td>
<td>—</td>
<td>—</td>
<td>Sexually transmitted infection and HIV prevention</td>
</tr>
<tr>
<td>September</td>
<td>Introduction to pathways</td>
<td>Childhood immunizations and influenza (public housing site)</td>
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<tr>
<td>October</td>
<td><em>Unnatural Causes:</em> film and discussion. How economic and social factors influence health and disease</td>
<td>Community services for vulnerable populations/nonprofits and government Services for the elderly (Milwaukee County Department on Aging) Caring for patients with disabilities (Independence First)</td>
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</tr>
<tr>
<td>November</td>
<td>Orientation/introduction to public health and local health priorities</td>
<td>Partnering with community agencies to improve chronic disease management: Mental health and addiction (Milwaukee County Behavioral Health/local agencies) Childhood asthma (Fight Asthma Milwaukee Coalition and Milwaukee Public Schools)</td>
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<tr>
<td>December</td>
<td>Literature searching/library holdings in public and community health</td>
<td>—</td>
<td>Pain management in high-risk populations</td>
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<tr>
<td>January</td>
<td>Social determinants of health and health disparities: Cultural humility/social construct of race/bias and discrimination in health care Maternal health/contraception and infant mortality Housing/homelessness/intimate partner violence</td>
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</tr>
<tr>
<td>February</td>
<td>Poverty simulation (with third-year students)</td>
<td>Poverty mitigators and case studies (site visit to local food pantry/community resource center)</td>
<td>Poverty simulation (facilitator roles)</td>
</tr>
<tr>
<td>March</td>
<td>Cultural aspects of health and health care: Health care and health promotion in the Latino Community Health care and health promotion in the Hmong Community Health care and health promotion in the LGBT Community</td>
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</tr>
<tr>
<td>April</td>
<td>Principles of community engagement: Community assessment: the MCW Violence Prevention Initiative Health literacy and effective community-based health education strategies Navigating the urban healthcare environment: advocating for your patient and community</td>
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<tr>
<td>May</td>
<td>—</td>
<td>—</td>
<td>Managing chronic disease in urban, underserved settings: clinical and community-engaged approaches</td>
</tr>
<tr>
<td>June</td>
<td>—</td>
<td>—</td>
<td>Final presentations—scholarship symposium</td>
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</table>
Aim:
To prepare future physicians to effectively care for patients in urban, underserved settings;
To promote community health;
To shape the system to improve the public’s health.

Students:
Medical students

Duration:
At least 10 hours/month through the first 3 years of medical school

Content:
4 hours core sessions

6 hours experiential noncore activities
~ the student’s personal learning agenda

  e.g. student led obesity education for health school students, homeless outreach program, community assessment for sexually transmitted infections, …
Main findings

• General descriptives of the identified programs:
  number, location, student group, position in the curriculum

• Content of the programs:
  aims, theoretical framework, pedagogical approach

• 4 programs at a glance
Goals of the programs

4 types of goals:

1) The goals explicitly mention SDH (9)

“to foster a better understanding of SDH and ways of addressing health disparities” (“Doctor/dentist, Patient and Society”, University of British Colombia, CA)
Goals of the programs

4 types of goals:

1) The goals explicitly mention SDH (9)

2) The goals mention health inequity or health disparities (11)
   e.g. “To provide the students the skills to plan, implement and evaluate a health disparity project” *(HBCU “Wellness project”, US)*
Goals of the programs

4 types of goals:

1) The goals explicitly mention SDH (9)
2) The goals mention health inequity or health disparities (11)
3) The goals implicitly refer to SDH (12)

“To enhance students knowledge and understanding of health issues and healthcare practice in rural and underserved communities”

(“Summer Practicum”, University of New Mexico, US)
Goals of the programs

4 types of goals:

1) The goals explicitly mention SDH (9)
2) The goals mention health inequity or health disparities (11)
3) The goals implicitly refer to SDH (12)
4) The outcomes of the program mention SDH (1)
Going out of the classroom …
Going out of the classroom ...

Mostly to local communities

large variation in community agencies and care providers
  e.g. domestic violence shelters, homeless shelters, community health centers,
  schools, Aids support organizations, substance abuse recovery centers, elderly
  homes, humanitarian organizations, free clinics,…

working for a large variety of populations
  e.g. low income population, homeless people, native populations, migrant
  populations, ethnic minority groups,…
An integrated curriculum on the health of marginalized populations
University of Toronto, Canada

Aim:
To increase trainee awareness and understanding of marginalization and health disparities;
To improve trainee attitudes towards and comfort with marginalized groups;
To encourage trainees to think of their patients in a more nuanced, contextual manner by shifting educational culture.

Students:
Medical residents

Duration:
1 – 4 months

Content:
Morning round = opportunity for discussion around root causes of ill health (selection of “topic”: e.g. recurrent COPD exacerbation)

Online blog by the chief medical resident on the highlights of the session and on a broad range of relevant political actions related to the topic.

Noon round: residents answer 3 questions related to the topic:
1) how do the SDH pertain to your topic?
2) how are certain groups at risk?
3) what are advocacy opportunities for physicians at the clinical or policy level?
Going out of the classroom …

Mostly to local communities

large variation in community agencies and care providers
e.g. domestic violence shelters, homeless shelters, community health centers,
schools, Aids support organizations, substance abuse recovery centers, elderly homes, humanitarian organizations, free clinics,…

working for a large variety of populations
e.g. low income population, homeless people, native populations, migrant populations, ethnic minority groups,…

Sometimes internationally
e.g. Guatemala, Uganda, Bangladesh, Mozambique,…
Pedagogical / educational approaches

- Community service learning (16)
- Community oriented primary care (5)
  - assessment of needs – development/implementation of intervention - evaluation
- Immersion in low-income country / international service learning
- Interdisciplinary learning / interprofessional learning
- Portfolio learning
- Student run clinics
- Reflection (22 + 8 information not available)
Pedagogical / educational approaches

- Community service learning (16)
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Form of community-centered experiential education that locates emerging health professionals in community-generated service projects and provides structured opportunities for reflection on the broader social, economic, and political contexts of health” Cashman et al, 2008
Pedagogical / educational approaches

- Community service learning (16)
- Community oriented primary care (5)
  assessment of needs – development/implementation of intervention - evaluation
- Immersion in low-income country / international service learning
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- Reflection (22 + 8 information not available)
Service learning: a vehicle for building health equity and eliminating health disparities
University of Arizona, US

Aim:

To enhance student awareness of and commitment to the elimination of health disparities.
For students, faculty and community partners to discover and act on the social determinants of health.

Students:

Master students Maternal and Child Health + Master Health Behavior health promotion + PhD students

Obligatory: 1 course of the five for Master students
2 courses for PhD students (1 + co-teach 1)

Duration:

1 week/course

Content:

5 distinct week-long intensive SL courses that are focused on binational, rural, and indigenous communities in the southwestern United States.
Service learning: a vehicle for building health equity and eliminating health disparities
University of Arizona, US

1) **Urban Family & Child Health**
   Focus on refugees & immigrants, homeless, urban native americans, …

2) **Indigenous Family and Child Health**
   Focus on Hualapai, Navajo, White Mountain Apache nations

3) **Border health**
   Focus on US-Mexico border sister cities

4) **Rural health**
   Focus on rural and isolated communities

5) **Urban/metropolitan health**
   focus on the greater Phoenix metropolitan area

**Educational methods:**

Panel discussions, interactive tours, discussions, guided observation activities
Participating in community activities (meal preparation, cleanup, …)
Giving presentations on health issues for community members
Home visits to observe and assist community health workers
Participate in public health activities (immunization, …)
Quantitative and qualitative assessment of community needs
Reflexive reporting
Theoretical framework

- Cultural competence (!)
- Sociocultural awareness
- Anthropological framework
- Ethical framework / social justice / human rights
- Social marketing
- Community-as-partner
- Patient-centered care
- Advocacy for health
Evaluation of the programs

- Qualitative evaluation (5)
  FGD with students, staff and community (workers), content analysis of reflection reports, …

- Quantitative evaluation (5)
  self-rated impact on learning outcomes, satisfaction, …

- Mixed methods (8)
  Often low quality (low sample size, no control group, selection bias, …)
Conclusions and recommendations

Limited number of programs identified

The majority US based

Mostly focused on medicine and/or nursing students

Almost no information on costs / missing information
Conclusions and recommendations

Limited number of programs identified
The majority US based
Mostly focused on medicine and/or nursing students
Almost no information on costs / missing information

→ Publication bias? Additional searches needed
→ Need for more transparent reporting of training programs
Conclusions and recommendations

Service-based learning as most used educational approach
Conclusions and recommendations

Service-based learning as most used educational approach

3 components of SL:

1) meet real community needs ~ “the rich getting richer”
   → doubtful / not reported how this was done
Conclusions and recommendations

Service-based learning as most used educational approach

3 components of SL:

1) meet real community needs ~ “the rich getting richer”
   → doubtful / not reported how this was done

2) grow out of intentional learning outcomes
   → often not the case / information is lacking
Conclusions and recommendations

Service-based learning as most used educational approach

3 components of SL:

1) meet real community needs ~ “the rich getting richer”
   → doubtful / not reported how this was done

2) grow out of intentional learning outcomes
   → often not the case / information is lacking

3) offer structured opportunities for reflection

“Reflection truly separates service learning from voluntarism” Ogenchuk, 2013
   → mentioned in 22/31 programs

Conclusions and recommendations

Evaluation of the programs often limited to self-reported outcomes of students and to the measurement of behaviour, a system-approach (cfr. Lancet commission) is often lacking.
Conclusions and recommendations

Evaluation of the programs often limited to self-reported outcomes of students and to the measurement of behaviour, a system-approach (cfr. Lancet commission) is often lacking

→ While SL experiences seem to be highly valued by educators and students, the effectiveness of it remains unclear
  Stallwood, 2005; Mc Menamin, 2014

→ Research is needed on the learning effects of SL, its impact on the community and the use of standardized instruments for measuring outcomes across projects
  cfr. Lee, 2012: systematic review cultural competence programs
Conclusions and recommendations

Evaluation of the programs often limited to self-reported outcomes of students and to the measurement of behaviour, a system-approach (cfr. Lancet commission) is often lacking

→ The evaluation of programs should include the impact on individuals (students, staff, individual patients,…), populations (communities) and systems (health care systems, educational system)
Beyond the background paper …

Other programs?
- snowball method: searching references
- additional information search on internet
- systematic screening abstract books relevant conferences

Intervention research?
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