How do you develop and sustain team based research?
My research experiences in cancer survivorship care

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Program of Research:
- Cancer survivorship
- Cancer prevention and control
- Vulnerable Populations

Research Highlights
- Cancer survivors who have completed active treatment have limited understandings of survivorship care and great need for skill building to manage late and long-term effects of cancer treatment. \(^1-^4\) Primary care is an important but under utilized partner in the management of long-term cancer survivor populations. \(^4-^6\)

- Our research focuses on patient and practice level factors that impact patient activation/self-management to promote cancer surveillance and disease prevention across the cancer continuum from prevention through survivorship.

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What makes teams work?

Psychologists are pinpointing the factors that make teams gel—research that has far-reaching implications for health care, education, research, industry and more

By Kirsten Weir
September 2018, Vol 49, No. 8
Print version: page 46
### Chapter 13: Team Science Readiness

#### Table 13.1 Competencies for productive participation in team science

<table>
<thead>
<tr>
<th>Competency</th>
<th>Examples</th>
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<tbody>
<tr>
<td><strong>Values, attitudes, and beliefs</strong></td>
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</table>
| Valuing interdisciplinarity or transdisciplinarity collaboration | Attitudes that predispose one to seek and integrate knowledge from varied disciplines and stakeholders  
Beliefs that such efforts are necessary, that support greater relevance, innovation, impact of outcomes |
| Contextual and multi-level perspectives                  | Belief that complex problems should be approached from and appreciative of contexts and multi-level factors                              |
| Collaborative orientation                               | Values that emphasize qualities important to inclusion of multiple and diverse perspectives and team work (e.g., building trust, taking intellectual risks) |
| **Habits of mind**                                      |                                                                                                                                 |
| Curiosity and open-mindedness                           | Broad intellectual curiosity, maintenance of open-mindedness in light of differences                                                    |
| Nondefensive reflectiveness                             | Openness to examining assumptions and limitations of one’s disciplinary or personal predispositions                                     |
| Critical thinking                                       | Critical awareness about one’s biases in collaborative situations, suspending judgment, deliberately taking into consideration multiple perspectives, re-evaluating in light of new information |
| Developing confidence                                   | Understanding how one’s own expertise adds value to interdisciplinary efforts; balancing assertiveness with patience                 |
| **Knowledge-based competencies**                        |                                                                                                                                 |
| Disciplinary grounding                                  | Cultivation of deep knowledge within one’s home discipline                                                                         |
| Other disciplinary and stakeholder knowledge accrual     | Understanding core substantive and conceptual knowledge from selected disciplines and stakeholders relevant to problem focus         |
| Cross-disciplinary synthesis                            | Personal and interpersonal capacity to make connections across varied concepts, theories, or research methods                        |
| Participating in collective integrative processes       | Develop shared interdisciplinary vision or models with disciplinary and other partners; joint questions or hypotheses; integrated research protocols and methods; modify work based upon the influence of others |
### Table 13.1 (continued)

<table>
<thead>
<tr>
<th>Competency</th>
<th>Examples</th>
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<tbody>
<tr>
<td><strong>Interpersonal competencies</strong></td>
<td></td>
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<tr>
<td>Interdisciplinary communication: understand others</td>
<td>Learn the language and methods of other disciplines sufficiently to work together effectively; actively engage perspectives of other stakeholders</td>
</tr>
<tr>
<td>Interdisciplinary communication: be understood by others</td>
<td>Explain one’s own work and perspectives in terms understandable to other disciplines and non-academic partners</td>
</tr>
<tr>
<td>Interdisciplinary communication: managing differences</td>
<td>Collaborate respectfully and equitably with disciplinary partners and stakeholders; effectively navigate tensions and conflicts</td>
</tr>
<tr>
<td>Interdisciplinary communication: social and relational skills</td>
<td>Build effective relationships with diverse partners: self-awareness; sensitivity to cultural and power differences; active engagement with project and other team members</td>
</tr>
</tbody>
</table>
How it all began: how SHAWNA HUDSON became a team scientist

ORIGIN STORY
Research Aim

• Examine cancer survivorship focused on long-term cancer follow-up care and primary care interface
Organizational Change Program of Research

**Observational Studies**

**DOPC**
Direct Observation of Primary Care  
(NCI: 1994-1997)

**P&CD**
Prevention & Competing Demands in Primary Care  

**IMPACT**
Insights from Multimethod Practice Assessment of Change over Time  
(NCI: 2001-2004)

**Intervention Studies**

**STEP-UP**
Study To Enhance Prevention by Understanding Practice  
(NCI: 1997-2000)

**ULTRA**
Using Learning Teams for Reflective Adaptation  
(NHLBI: 2002-2008)

**NDP Evaluation**
National Demonstration Project  
(AAFP: 2006-2009)

*Left to Right:* Ben Crabtree (Rutgers), Kurt Stange (Case Western), Paul Nutting (University of Colorado), Will Miller (Lehigh Valley Health Center), Carlos Jaen (UT Health San Antonio)
Beginning of our Cancer Survivorship Portfolio

- **Enhancing Colorectal Cancer Screening through Learning Teams** (NCI R01 CA112387, Crabtree PI)

- **Life After Cancer: Examining Survivor Transitions from Specialist to Primary Care** (NCI K01 CA131500, Hudson PI)

- **Predictors of Follow-Up Care Seeking Among Breast and Prostate Cancer Survivors** (NCI R03 CA154063, Hudson PI)

- **Understanding Barriers to Care for Community Treated Cancer Survivors** (CINJ Pilot Funds, Hudson PI)
Estimated Number of Cancer Survivors in the US

Year


Millions

0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20

12 million

15.5 million

Projections


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Survivorship by Time Since Diagnosis

Female

Male

American Cancer Society, 2014
Survivors and Co-Morbidity

• 70% of cancer patients have co-morbid conditions requiring comprehensive medical care
• At risk for progressive disease, functional decline and premature death
• Over 60% of survivors will be 65 years or older by the year 2020 with multiple morbid conditions
• Survivorship care plans suggested as a tool to help manage complex, chronic disease

Ogle et al, *Cancer*, 2000
Sunga et al, *Am Fam Physician* 2005
Parry et al, *CEBP*, 2011
4. When is standard 3.3 to be implemented?

The Accreditation Committee made the following changes to the established time frame and scope of implementation for Standard 3.3.

**January 1, 2015** – Implement a pilot survivorship care plan process involving 10% of eligible patients.

**January 1, 2016** – Provide survivorship care plans to 25% of eligible patients.

**January 1, 2017** – Provide survivorship care plans to 50% of eligible patients.

**January 1, 2018** – Provide survivorship care plans to 75% of eligible patients.

**January 1, 2019** – Provide survivorship care plans to all eligible patients.

During the implementation period, cancer programs should initially concentrate on their most common disease sites, such as breast, colorectal, prostate, early-stage bronchogenic, and lymphoma.
Background

- Breast, prostate and colorectal cancer survivors represent over half of the cancer survivor population.

![Estimated Number of Cancer Survivors in the U.S., by Site](image)
Program of Cancer Survivorship Research
Cancer Survivorship in Primary Care Research: Multi-Level Process of Care Model

- Kieber Emmons Supplement and ACS CDA grant
- Christian Supplement
- Davis Supplement
- Ferrante R21
- Hudson R03
- Hudson K01
- O’Malley ACS
- Crabtree R01
- Crabtree R13
- Tsui ACS CDA grant
- Hudson R01
- Hudson/Crabtree MPI R01

Taplin & Clauser, *Journal of the National Cancer Institute*, 2012
Provider/Team and Organization/Practice Studies

Cancer Survivors and the Patient Centered Home
- R01 CA176545; PI: Benjamin Crabtree PhD, Co-I: Hudson
- Qualitative Case Study
- N=20 exemplar primary care practices across the US

PCMH Dissemination Strategies
- R13 HS021287; PI: Benjamin Crabtree PhD, Dissemination Consultant: Hudson
- Expert panel focused on innovative primary care practices’ work with cancer survivors
- Explores facilitative HIT, population health management strategies and practice improvement strategies
Patient Studies

**Life After Cancer**
- K01 CA131500; PI: Hudson
- Qualitative Depth Interview Exploratory Study (N=42 Breast and Prostate Cancer Survivors)

**Community ONC Predictors of Follow-Up Care**
- R03 CA154063 and K01 CA131500, PI: Hudson
- Survey Study (n=332 Breast and Prostate Cancer Survivors)

**EXCELS (Extended Cancer Education for Longer-term Survivors)**
- R01 CA176838, PI: Hudson
- Formative Phase 1 (N=47 patients, n=9 providers), User testing (n=15), RCT Phase 2 (Projected n=480)

**Spark People**
- R21 CA191431, PI: Ferrante
- Pilot RCT (n=70 AA breast cancer survivors)
Life After Cancer Study

Objective: To explore survivors’ understandings of follow-up and their perceptions of who delivers it.
Career Development Studies

Policy/Organization/Practice Level/Patient (Kieber-Emmons PI)
- Cervical cancer survivorship disparities
- ACS Career Development Award

Organization/Practice Level (Tsui PI)
- Health system care delivery factors that impact care transitions for underserved populations
- ACS Career Development Award

Patient Level (Davis PI)
- Profile of health literacy and technology usage and ownership of long-term cancer survivors
- Diversity Supplement on EXCELS
Thank You!

Societies worldwide are struggling to address complex social, environmental, and public health problems. Effectively understanding and tackling “wicked” problems...requires the combined knowledge, skills and innovative capacity of a wide array of disciplines. –*Strategies for Team Science Success, pg 171*
Questions?

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