The Role of CHW in Brain Care

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Objectives

• Review the Collaborative Dementia Care Trial
• Describe the structure and the tools of the Aging Brain Care (ABC) Program
• Review early pilot data
• Describe the development of the new work force for the ABC program
The Collaborative Dementia Care Model (CDCM)

Primary Care Clinician:
- detect and treat delirium
- detect and treat BPSD
- Enhance cholinergic system by
  - Prescribe ChEIs
  - Discontinue Anticholinergic

Caregiver Focus:
- Problem solving skills
- Counseling
- Respite care
- Support group

Clinical Liaison

Expert Team:
- Geriatrician
- Social Psychologist
- GeroPsychiatrist

General Environmental Modification:
- Medication adherence support
- Home safety assessment

Coordinate and Deliver

Callahan et al, JAMA 2006; Austrom et al, Gerontologist 2004; Boustani et al, JCIA 2006
• CDCM led to 7 point improvement in Neuropsychiatry Inventory (NPI)

• Number need to Treat (NNT) = 3.7

• Each 1 point decline in NPI = $250-$400 in health care expenses

• CDCM saved 1750-$2800 per patient

• Improvement in family stress

Callahan, Boustani et al, JAMA 2006
From “JAMA” to Aging Brain Care Service Line at Wishard!
1. Check Hospital & ER Alerts every day

2. Coordinate with Inpatient services
   a) Alert hospital team of presence of CI/ Depression
   b) Medications conciliation
   c) Connect with family caregiver
   d) Request ACE consult
   e) Coordinate post discharge transition

3. Post discharge care
   a) Home visit within 72 hours of discharge
   b) Mediation reconciliation
   c) Coordinate Home Care visit
   d) Coordinate post hospital orders
   e) Deliver Delirium protocol and handout

4. Ongoing Aging Brain Care
   a) Manage Depression
      i. PST
      ii. SSRI
      iii. CBT
   b) Manage Cognitive Impairment
      i. ChEIS (if needed)
      ii. D/c Anticholinergics
      iii. Caregiver counseling and education
      iv. Mediation adherence support

Callahan et al, Aging & Mental Health 2011; Boustani et al, Aging & Mental Health 2011
ABC Tools
www.agingbraincare.com

- ABC Multiple Mini Interview
- ABC Training Curriculum, Implementation Process, and Fidelity assurance
- ABC Symptoms Monitor (HABC-M)
- ABC Care Protocols
- ABC Informal Caregivers Handouts
- Anticholinergic Cognitive Burden Scale
- ABC Mobile Office with a tablet PC, Smart phone, access to Internet and Intranet
- A team workstation Hub
- Population Management Software (eMR-ABC)
ABC Performance (Pilot program)

<table>
<thead>
<tr>
<th>The Acute Care Service Utility Domain</th>
<th>ABC</th>
<th>PCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>% patients with at least one ER visit</td>
<td>28%</td>
<td>49%</td>
</tr>
<tr>
<td>Total number of ER visits</td>
<td>124</td>
<td>1143</td>
</tr>
<tr>
<td>% patients with at least one hospitalization</td>
<td>13%</td>
<td>26%</td>
</tr>
<tr>
<td>Total number of hospitalizations</td>
<td>45</td>
<td>438</td>
</tr>
<tr>
<td>Mean/Median length of hospital stay</td>
<td>5 / 4</td>
<td>7 / 4</td>
</tr>
</tbody>
</table>

Boustani et al, Aging & Mental Health 2011
## The Quality of Care Indicator Domain

<table>
<thead>
<tr>
<th>Indicator</th>
<th>ABC</th>
<th>PCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>% seen at ER again within one week</td>
<td>14%</td>
<td>15%</td>
</tr>
<tr>
<td>% re-hospitalized within 30 days of discharge</td>
<td>11%</td>
<td>20%</td>
</tr>
<tr>
<td>% with at least one order of definite anticholinergics</td>
<td>19%</td>
<td>40%</td>
</tr>
<tr>
<td>% with at least one order of neuroleptics</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>% with at least one order of anti-dementia drugs</td>
<td>55%</td>
<td>13%</td>
</tr>
<tr>
<td>% with at least one order of antidepressant drugs</td>
<td>68%</td>
<td>48%</td>
</tr>
<tr>
<td>% with at least one order of definite anticholinergics and anti-dementia drugs</td>
<td>16%</td>
<td>32%</td>
</tr>
<tr>
<td>% with at least one LDL order</td>
<td>82%</td>
<td>72%</td>
</tr>
<tr>
<td>% of patients with LDL &lt; 130</td>
<td>45%</td>
<td>23%</td>
</tr>
<tr>
<td>% with at least one HbA1c order</td>
<td>78%</td>
<td>62%</td>
</tr>
<tr>
<td>% of patients with HbA1c &lt; 8</td>
<td>78%</td>
<td>51%</td>
</tr>
<tr>
<td>% with last systolic BP &lt; 160</td>
<td>27%</td>
<td>24%</td>
</tr>
</tbody>
</table>

Boustani et al, Aging & Mental Health 2011
## Early Data First quarter 2013
### Jan 1 to March 30

<table>
<thead>
<tr>
<th>Variable</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Active patients</td>
<td>2234</td>
</tr>
<tr>
<td>Total visits</td>
<td>5190</td>
</tr>
<tr>
<td>Mean age</td>
<td>76.5 yrs</td>
</tr>
<tr>
<td>Full Dementia Responders</td>
<td>54% to 91%</td>
</tr>
<tr>
<td>Major depression full responders</td>
<td>38% to 43%</td>
</tr>
<tr>
<td>Cost reduction per resident (n= 194)</td>
<td>40% (95% CI 20% to 60%)</td>
</tr>
</tbody>
</table>
STAFFING PLAN

NP — SW — NP

NP — SW — RN

CCA — CCA — CCA

CCA — CCA — CCA

CCA — CCA — CCA

CCA — CCA — CCA

CCA — CCA — CCA

CCA — CCA — CCA

CCA — CCA — CCA

CCA — CCA — CCA
The New Workforce (CCA)

Care Coordinator Assistant (CCA) Role

- Based on “task shifting” concept: tasks that require less training and expertise are provided by less expensive members of the care team.
- Standardized care protocols delivered under close supervision.
- 2 levels:
  - CCA-I: at least high school diploma
  - CCA-II: have 2-year degree
CCA Responsibility

- Enroll patient/caregiver in the program
- Conduct patient/caregiver biopsychosocial needs assessment
- Deliver specific care protocols
- Monitor medication adherence
- Manage data entry in eMR-ABC
- Manage patient/caregiver psychosocial care needs

All under close supervision of NPs, RN, and MSWs
Innovative Onboarding Model

- **Initial phone screen** with questions about experience and attitudes along with Wishard team and skills-focused questions

- **Follow-up face-to-face interview** with additional questions about experience and attitudes along with Wishard team and skills-focused questions

- **A Six-Station Multiple Mini Interviews (MMIs) evaluation**
Multiple Mini Interview

- Multiple Mini Interview (MMI) used in the admissions process in a growing number of medical schools
- Changes interview process from “Tell me about what you can do” to “Show me what you can do.”
Multiple Mini Interviews

- 6 stations
- Each with a different interviewer
- Candidates assessed on their ability to do something, for example:
  - Communicate
  - Exhibit critical thinking
  - Demonstrate empathy
MMI Stations

Station 1: Develop rapport with both patient and caregiver

Station 2: Maintain composure under stress

Station 3: Demonstrate compassion

Station 4: Educate caregiver and patient

Station 5: Prioritize multiple needs

Station 6: React positively to photo of elderly person
Each MMI Station

- Identified goal(s)
- Description of scenario
- Role descriptions for SPs
- Door note
- Background information for interviewer
- Assessment with open-ended questions and Likert-scale evaluations
Interview Station 1: Develop Rapport with Patient and Caregiver
Interview Station 4: Educate Caregiver and Patient
Interview Station 6: React Positively to Photo

In addition, standard Q&A interview was part of this station.
Five minutes per station with 2 minutes allotted to prep for the next station.
Candidate Assessment

- Performance at each station evaluated by interviewers
- Open-ended questions at some stations
- 2-3 performance evaluation items were created for each station
  - Each item was rated by the interviewer on a Likert-type scale (1=Lowest to 5=highest)
  - Anchoring terms for scores of 1, 3, and 5 were created
Evaluation of Empathy

Interviewer’s Evaluation of the Empathy

Did applicant overtly notice (through obvious gesture, touch or comment) that the patient was distraught/crying?  ____ Yes  _____ No

Ability of applicant to display empathy by responding to the patient’s emotion

1  2  3  4  5
Did not appear concerned  Showed some concern  Clearly concerned
Did not try to comfort patient  Made some effort to comfort patient  Was caring and worked hard to comfort patient
Three Global Ratings of Each Candidates

• After each individual station, interviewer ranks candidate
• After all candidates have completed station, interviewer ranks all candidates
• After post-interview group debrief interviewer ranks all candidates again
Post Interview Group Debrief

Interviewers met together immediately following the MMIs to discuss, rank candidates, and identify those candidates to whom an offer of employment would be made.
Total N Interviewed and Hired

- 62 screened candidates invited to an MMI session
- 4 MMI Sessions were conducted between July and November 2012
- 21 CCAs were hired
Comparison of Performance of Hired vs. Non-hired Candidates

- Interviewers’ ratings of CCA candidates performance after all CCA interviews were significantly different for most stations (hired scoring better than those not hired)
- Scores on Station 3 (empathic response) was most discriminating
- Scores on Station 6 (perception of elder in picture) were least discriminating
Conclusions about the Screening Process

- MMI provides a discriminating process for hiring CCAs based on key attributes
- The scoring by interviewers resulted in increasing ability to discriminate performance of desirable candidates
- Even a 5 Station MMI with 2-3 items per station can help select top candidates from those who passed HR screening
CCA Training

Two week training included:

• Interactive sessions
• Clinical immersion
• Three half days of simulation with trained standardized patients in Medical Education Simulation Center
Interactive Sessions

• Imbedded didactic lectures
• Video sessions (e.g. Iris, The Notebook, and HBO series on Alzheimer’s disease)
• Role playing utilizing both current ABC staff and trainees (e.g. assessment tools, communication skills, and caregiver interventions)
• Teambuilding (e.g. collaborative care model, team lunches, and CCA gift exchange)
• Reflective reading and writing
Clinical Immersion

• Shadowed at Healthy Aging Brain Center and observed
  ➢ neuropsychological testing
  ➢ physician exam
  ➢ family conference

• Accompanied ABC Medical Home staff during home visits
  ➢ initial visit with assessments
  ➢ protocol delivery

• eMR-ABC
  ➢ practiced data entry
  ➢ trained in population health functions of the eMR-ABC
Simulations

• Three half days
• Trained standardized patients in Medical Education Sim Center
  ➢ Each CCA conducted a “home visit” with two trained standardized patients (caregiver/patient dyad), while being videotaped
  ➢ Immediately following the session CCAs provided feedback on the interaction by the standardized patients
CCA Simulations with SPs

• Watched the videotape of their encounter, completed self-assessment

• Participated in small group debrief on their experience, viewing several videotapes
  ➢ Identified areas of strength and improvement
  ➢ Communication skills, active listening, non-verbal

• Repeated encounter a 2nd time to improve their performance, delivery of service and level of comfort (videotaped)
Progress Report
[1 year]

• New Hires
  ➢ 2 Nurse Practitioners
  ➢ 1 Registered Nurse
  ➢ 1 Social Worker
  ➢ 20 CCAs
    ▪ 3 from CICOA; 5 from Arnett
  ➢ 4 Program Administrators
  ➢ .40 Medical Directors

• 20 CCAs trained and deployed
  ➢ Lost 1 CCA to an administrative role

• 2000 patients enrolled
AGING BRAIN CARE MEDICAL HOME TEAM
Collaborators

Mary Austrom
Cathy Alder
Christopher Callahan
Ann Cottingham
Michael LaMantia
Debra Litzelman