Master Of Public Health
Thesis Research and
Field Experience Presentation

Briana Rockler
B.A. Biology, University of Colorado, 2007

Justin Hall 167
Kansas State University
April 24, 2015 1:30pm
Outline

• Thesis Presentation
  – Background
    • Rural Health, Community-Engaged Research, Coalitions
    • Current Literature
  – Research Objective
  – Methods
  – Results
  – Discussion
  – Questions

• Field Experience Presentation

• Conclusion

• Questions
Communities partnering with researchers: 
An evaluation of coalition function in a 
community-engaged research approach

by

Briana E. Rockler

submitted in partial fulfillment of the requirements of Master of Public Health
Rural Health in the United States

- Obesity\textsuperscript{1-3}
- Diabetes\textsuperscript{1-3}
- Cancer\textsuperscript{1-3}
- Injury\textsuperscript{4}
- Suicide\textsuperscript{4}
- All-age mortality\textsuperscript{1-4}

Image source: iStockPhoto.com

Elmer, Kansas
The United States is 72% rural land\(^6\)

89/105 Kansas counties are considered rural\(^5\)

Rural = <40 persons/square mile\(^5\)

(U.S. Department for Health and Human Services)
Rural Health in the United States

Elmer, Kansas

Kansas City
Social and Behavioral Approaches to Public Health

- Transtheoretical Model (Stages of Change)
- Information Processing Paradigm
- Theory of Reasoned Action
- Social Cognitive Theory
- Health Belief Model
- Social Ecological Model
- + more!
Applying what works, and doing what is right for the setting

- Community-Engaged Research (CEnR)\(^7,8\)
  - Incorporation of community stakeholders into traditional public health or academic research
  - Framework to conduct research with an ecological approach
  - Evidence-based
  - Community tailored

Image source: http://icommunityhealth.org/products-services/cbpr/
CEnR®

Unique Partnership

- Research Objectives
- Strength of Engagement
- Politics
- Scale of Target Population
- Community History
- Length of Partnership
Community Coalitions

• Community activists that mobilize locally to promote improved conditions for their community
  – Parents
  – Teachers
  – Law enforcement
  – Non-profit organizations
  – Religious leaders
  – Healthcare providers
  – Concerned citizens
  – + more!

Image source: https://diy.org/skills/urbandesigner/challenges/1298/attend-a-community-planning-meeting
Current Literature
• Public health efforts rooted in local communities successful in addressing complex health problems and reducing health disparities\textsuperscript{10-12}

• Limited information regarding partnership process\textsuperscript{13,14}

• Focus on health outcome measures\textsuperscript{14,15}
• Limited information regarding coalition groups as public health partners\textsuperscript{16}

• Future research on community coalitions should be based in coalition theory, address theoretical constructs:\textsuperscript{17}
  – Community Organization and Development Model
  – Framework for Partnerships and Community Development
  – Framework of Organized Viability
  – Model of Community Health Governance
  – Stages of Development Theory
  – + more!
Community Coalition Action Theory (CCAT)

• Butterfoss, 2007: Coalition constructs determine community health outcomes

• Several studies have reinforced the logic proposed by the CCAT by linking coalition constructs to short- and intermediate-term indicators of coalition success\textsuperscript{3,16,19-24}
  – Membership and recruitment
  – Decision-making
  – Conflict
  – Leadership
  – Staffing
  – Trust
  – Communication
  – Mission strategy and action plan
  – Participation
  – Coalition capacity

• No literature regarding CEnR dose-response relationship
Research Objective
This study seeks to evaluate the effects of CEnR partnership on existing rural community health coalitions involved in the pilot year of a collaborative CEnR project.

Methods and Procedures

“O.K., let’s slowly lower in the grant money.”

Mobilizing Rural Low-income Communities to Assess and Improve the Ecological Environment to Prevent Childhood Obesity

• Collaborative, multi-state, multi-disciplinary research project to address childhood obesity in low-income rural communities
• This project was funded by the Agriculture and Food Research Initiative (AFRI) from the USDA National Institute of Food and Agriculture
Two coalitions per State (n = 12)

Intervention Coalition (n = 6)
Baseline Assessment
- $5,000
- Menu of recommended tools
- Community Coach
Follow-up Assessment

Control Coalition (n = 6)
Baseline Assessment
- $5,000
- Menu of recommended tools
Follow-up Assessment

Identify and implement interventions to address childhood obesity locally over one year

Fall 2012
Fall 2013
Measures
• Coalition Self-Assessment Survey (CSAS)
  – Quantitative data regarding constructs of coalition function
  – 41 questions, ~30 minutes
  – High face validity, in-depth use of tool
Data Analysis
• SPSS Version 21.0
• Three comparison groups
  – Control Baseline vs. Control Follow-up
  – Intervention Baseline vs. Intervention Follow-up
  – Control vs. Intervention at Follow-up
• Bivariate analyses
  – Pearson’s Chi-square test for independence
    • Change in categorical variables within and between groups
  – Mann-Whitney U test
    • Change in Likert-type ordinal variables within and between groups
• Statistical significance set at \( p < 0.05 \)
Results
## Demographics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Control Baseline</th>
<th>Control Follow-up</th>
<th>Intervention Baseline</th>
<th>Intervention Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
<td>57</td>
<td>42</td>
<td>76</td>
<td>71</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>14%</td>
<td>9.5%</td>
<td>17.1%</td>
<td>12.7%</td>
</tr>
<tr>
<td>Female</td>
<td>82.5%</td>
<td>90.5%</td>
<td>81.6%</td>
<td>84.5%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>47.09 (SD = 12.72, Range = 23-77)</td>
<td>47.66 (SD = 12.90, Range = 13-68)</td>
<td>46.78 (SD = 11.79, Range = 23-73)</td>
<td>47.70 (SD = 10.64, Range = 26-73)</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>5.3%</td>
<td>2.4%</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Caucasian</td>
<td>89.5%</td>
<td>97.6%</td>
<td>98.7%</td>
<td>100%</td>
</tr>
<tr>
<td>Latino or Hispanic</td>
<td>-----</td>
<td>2.4%</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ Grade 8</td>
<td>-----</td>
<td>2.4%</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>High school</td>
<td>7%</td>
<td>4.8%</td>
<td>3.9%</td>
<td>9.9%</td>
</tr>
<tr>
<td>Tech or Vocational</td>
<td>1.8%</td>
<td>4.8%</td>
<td>6.6%</td>
<td>8.5%</td>
</tr>
<tr>
<td>College</td>
<td>57.9%</td>
<td>50%</td>
<td>50%</td>
<td>45.1%</td>
</tr>
<tr>
<td>Graduate School</td>
<td>29.8%</td>
<td>35.7%</td>
<td>38.2%</td>
<td>36.6%</td>
</tr>
<tr>
<td><strong>Community Sector Representation</strong></td>
<td>14</td>
<td>11</td>
<td>17</td>
<td>17</td>
</tr>
</tbody>
</table>
Coalition Systems

Significant changes in coalition constructs related to coalition systems

Coalition Systems

% of constructs changed

Control
Intervention
Control vs. Intervention
Coalition Capacity

Significant changes in coalition constructs related to coalition capacity

% of constructs changed

Coalition Capacity

- Perceived impact
- Knowledge
- Readiness
- Satisfaction

- Control
- Intervention
- Control vs. Intervention
Coalition Synergy

Significant changes in coalition constructs related to coalition synergy

- % constructs changed

![Graph showing significant changes in coalition constructs related to coalition synergy.](image)

- Control
- Intervention
- Control vs Intervention
## Mission Strategy

<table>
<thead>
<tr>
<th>Mission strategy/Action Plan</th>
<th>Control</th>
<th>Intervention</th>
<th>Control vs. Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notification of meetings is timely</td>
<td>51.60/40.43</td>
<td>63.54/75.29</td>
<td>50.81/59.91</td>
</tr>
<tr>
<td></td>
<td>473.00, p = 0.047*</td>
<td>1975.00, p = 0.05*</td>
<td>1231.00, p = 0.10</td>
</tr>
<tr>
<td>Background materials needed for meetings are prepared in advance of meetings (agendas, minutes, study documents)</td>
<td>51.73/37.12</td>
<td>58.82/73.51</td>
<td>44.78/69.75</td>
</tr>
<tr>
<td></td>
<td>795.00, p = 0.02*</td>
<td>1689.50, p = 0.01*</td>
<td>1021.00, p = 0.003*</td>
</tr>
<tr>
<td>Informative committee and/or task force reports are routinely made to the entire coalition</td>
<td>43.49/37.89</td>
<td>57.44/66.81</td>
<td>46.86/54.76</td>
</tr>
<tr>
<td></td>
<td>661.00, p = 0.003*</td>
<td>1621.00, p = 0.10</td>
<td>1281.00, p = 0.15</td>
</tr>
</tbody>
</table>

*Significant measures, p < 0.05
Discussion
CEnR

+ 

-Decision-making
-Conflict resolution
-Staffing
-Participation
-Leadership (1/14 variables)

CEnR

w/ Community Coach

+ 

-Leadership (7/14 variables)
-Trust
-Communication
-Coalition Capacity
-Mission strategy/action plan

CEnR

w/o Community Coach

- 

-Mission strategy/action plan
Alignment with Coalition Theory

[Diagram showing the process of coalition formation and management with the following steps:
- Community Context
- Coalition Membership
  - Lead Agency or Convener Group
  - Operation and Processes
  - Leadership and Staffing
  - Structures
- Synergy
  - Pooled Resources
- Member Engagement
- Assessment and Planning
- Implementation of Strategies
  - Community Change Outcomes
  - Community Capacity
  - Health/Social Outcomes
- Formation → Maintenance → Institutionalization]
The data suggest that coalitions with a higher degree of partnership interaction may be more successful in addressing problems impacting their communities.
Experimental Strengths

- Temporal relation
- Plausibility
- Dose-response
- Consistent with published literature
- Rooted in coalition theory
- A variety of models
  - Funding only
  - Funding + Coach
Limitations

• Quasi-experimental
  – Selection bias

• Measurement tool
  – Validity
  – Recall bias

• Data collection procedures
  – Sampling bias

• Setting
  – Transfer bias

• Length
Future Research

• Findings from this study should be informative to researchers seeking to collaborate with community health coalitions

• Directions for future research include
  – Dose-response studies to determine ideal level of engagement
    • Is coaching a best practice?
  – Focus on varying degrees and types of collaboration
  – Longer duration
  – Reversibility studies
References

References


20. Clark NM, Malveaux F, Friedman AR. An introduction to allies against asthma and this special issue. *Health Promot Pract*. 2006;7(2 Suppl):8S-12S.


Questions?
Public Health Field Experience Presentation

Preceptor: Rhonda Parmley, PhD LPC
Denver, Colorado
May – July, 2014
HealthKind

- 501(c)(3) non-profit organization

- Engage South Sudanese nationals living in the U.S. in an effort to bring sustainable, community-based and integrative health initiatives to their home country.
  - Health education
  - Health-worker education
  - Delivery of services
South Sudan

- Maternal mortality: 2,054/100,000 pregnancies\(^1\)
- Infant mortality: 64/1,000 live births\(^2\)
- Under-five mortality: 99/1,000 children\(^2\)
- 90% of the world’s guinea-worm disease burden\(^2\)
- 2014 cholera outbreak\(^3\)
- 25% of population has access to health care\(^4\)
  - NGOs responsible for up to 80% of health services\(^2\)
- Level 3 humanitarian emergency\(^3\)

What does rural Kansas have in common with South Sudan?

- Lack of access to appropriate health programs
- Hard-to-reach demographics
- Complex health problems
- Lack of sustainable health approaches
Mission:

“We partner with local communities to develop and implement sustainable, integrated health care programs in the developing world. We collaborate to develop local citizens’ capacity to build, staff, and maintain health care programs and services that meet their unique and self-defined needs”.
Scope of Work

- Funding
  - Grant Applications
  - Fundraising
- Program support
- Networking
  - “Cross-pollination”
Learning Objectives

• Learn how to implement and manage novel health programs in a global setting

• Develop materials for global health advocacy

• To better understand barriers facing global health practice in a non-profit setting
Activities

• Grant Applications
  – Chatlos Foundation
  – USAID Office of Maternal and Child Health: Emerging Priorities in Reproductive, Maternal and Newborn Health
    • Developed evidence-based maternal health intervention rooted in community
  – Grand Challenges Explorations Grant (Gates Foundation)
Activities

Peace for South Sudan Fundraising Dinner and Silent Auction

PEACE FOR SOUTH SUDAN
FUNDRAISING DINNER & SILENT AUCTION // $25
HealthKind

JULY 26, 2014
JOIN US AT THE POSNER CENTER FOR INTERNATIONAL DEVELOPMENT
1031 33RD ST. DENVER, CO 80205 // 7PM-10PM
CONTACT US AT INFO@HEALTHKIND.ORG

The proceeds from this event will be sent to CADG International - South Sudan to provide healthcare relief in Twic East County during the current crisis and to fund HealthKind’s ongoing health programs for South Sudan.

All images: property of HealthKind
Activities

• Community Engagement
  – Program support
    • Women Cry for Peace and Life group gatherings
  – Enhance HealthKind’s “reach”
    • Social media
    • Mass communication
    • Advertising
  – Networking
    • Community presence
    • Event attendance
  – Executive Summary

All images property of HealthKind
Lessons Learned

• Even with a strong foundation in public health, it takes a great deal of energy and resources to keep non-profit organizations viable.
  – Whole-picture of non-profit work, rather than a snapshot of an already well-established organization.
Conclusion

• When researchers and healthcare providers partner with stakeholders who care most about a problem, they will be better prepared to address these issues as a united force.
Questions?
### Alignment with public health core competencies

<table>
<thead>
<tr>
<th>Competency</th>
<th>Thesis/Field Experience Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biostatistics</strong></td>
<td>• Interpreted statistical methods in published literature</td>
</tr>
<tr>
<td></td>
<td>• Utilized community-level vital statistics, records, and public health characteristics from rural Kansas and South Sudan</td>
</tr>
<tr>
<td></td>
<td>• Aggregated, analyzed, and interpreted quantitative data related to thesis research</td>
</tr>
<tr>
<td><strong>Environmental Health Sciences</strong></td>
<td>• Developed health interventions specific to unique environmental settings: potable water, sanitation methods, internally displaced persons, contaminated food</td>
</tr>
<tr>
<td></td>
<td>• Explored environmental health risk as it relates to rural health indicators, specifically in childhood obesity</td>
</tr>
<tr>
<td><strong>Epidemiology</strong></td>
<td>• Interpreted epidemiologic data from rural Kansas and South Sudan – prevalence, mortality</td>
</tr>
<tr>
<td></td>
<td>• Evaluated literature based on epidemiologic principles</td>
</tr>
<tr>
<td></td>
<td>• Conceptualized the dissemination of epidemiologic data</td>
</tr>
<tr>
<td></td>
<td>• Evaluated my own research</td>
</tr>
<tr>
<td><strong>Health Services Administration</strong></td>
<td>• Focused on increasing access to care in rural Kansas and South Sudan</td>
</tr>
<tr>
<td><strong>Social and Behavioral Sciences</strong></td>
<td>• Accounted for social and cultural elements of health status in the development of health interventions</td>
</tr>
<tr>
<td></td>
<td>• Utilized theoretical models: Social Ecological Model (Ecological Model for Childhood Overweight), Community Coalition Action Theory</td>
</tr>
</tbody>
</table>
References


Acknowledgements

• MPH Committee
  – Dr. Sandy Procter
  – Dr. Paula Peters
  – Dr. Michael Cates

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  – Dr. Rhonda Parmley
  – Kuier Atem

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• Department of Human Nutrition

• Family/Friends

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  – Dr. Tina Remig