Strengthening the Evidence for Community-Based Wellness: An Academic-Practice Approach to Support Evaluation and Dissemination

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Disclosures

• Vicki Simpson, Assistant Professor, Purdue University School of Nursing, vsimpson@purdue.edu
• Author declares no conflict of interest.
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Learning Objectives

• Describe the utility of a CBPR approach to evaluation and dissemination of effective community-based wellness programs.

• Discuss the individual, policy, systems and environmental outcomes of a community-based wellness program offered by a local grassroots coalition in a rural US county.
Community-Based Participatory Research

Principles of CBPR

- Recognizes community as a unit of identity
- Builds on strengths and resources within the community
- Facilitates collaborative partnerships in all phases of the research
- Integrates knowledge and action for mutual benefit of all partners
- Promotes a co-learning and empowering process that attends to social inequalities
- Involves a cyclical and incremental process
- Addresses health from both positive and ecological perspectives
- Disseminates findings and knowledge gained to all partners

Israel et al., 1998 and 2003
Evaluate the effectiveness of a community-based wellness program offered by a local grassroots coalition.
Purpose of Partnership

1. Enhance data collection
2. Evaluate program impact
3. Disseminate evidence
The mission of Purdue University School of Nursing is to serve the citizens of Indiana, the nation, and the world through discovery that expands the realm of nursing knowledge, learning through the dissemination and preservation of knowledge that prepares beginning and advanced nursing graduates for professional licensure and leadership in their work settings, engagement through the application of nursing science in local to global healthcare settings, and advocacy through participation in healthcare legislation and policy that respect diverse client populations.
Healthy Communities of Clinton County Coalition

- The coalition is a partnership of healthcare providers, service care providers, educators and community leaders who are interested in addressing issues of health in Clinton County community. The coalition is committed to making permanent changes by encouraging policy, systems and environmental changes.
Clinton County, Indiana
KNOW YOUR NUMBERS
WELLNESS PROGRAM

FREE HEALTH SCREENINGS!
Get free blood pressure screening, blood sugar screening, body mass index calculation, physical fitness and nutrition education.

EIGHT CONVENIENT LOCATIONS MONTHLY:

<table>
<thead>
<tr>
<th>Location</th>
<th>Date</th>
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<tbody>
<tr>
<td>YMCA, 530 S. Mish Rd</td>
<td>2nd Monday</td>
</tr>
<tr>
<td>Learning Network, 1111 S. Jackson St</td>
<td>3rd Wednesday 12:00-1:00 pm</td>
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<tr>
<td>Stone Soup Food Pantry, 114 N. Main St Mulberry</td>
<td>1st Monday 8:00-9:00 am</td>
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<tr>
<td>Roseville Food Pantry, 200 Park St Roseville</td>
<td>3rd Wednesday 8:30-10:30 am</td>
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<tr>
<td>Colfax Christian Church, Clark St.</td>
<td>4th Tuesday 10:00-11:00</td>
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<tr>
<td>Hills Baptist Church, 200 N. Kirkland</td>
<td>1st Thursday 10:00-11:00</td>
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<tr>
<td>Michigantown Christian Church, 108 W. 2nd St, Michigantown</td>
<td>1st Monday 5:00-7:00</td>
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</tbody>
</table>

- **4**: SIXTEEN OUNCE GLASSES OF WATER A DAY
- **6**: SERVINGS OF FRUIT AND VEGETABLES A DAY
- **0**: TOBACCO USE
- **4**: POSITIVE THOUGHTS A DAY
- **1**: HOUR OF PHYSICAL ACTIVITY 5 DAYS A WEEK

[Logos of Purdue Extension, Health Plan, and Indiana Reporting System]
Participant Characteristics

• Mean Age 49.09 (SD 17.1)
• 66.82% Female
• Majority aged 31-50 years
• 1350 total visits

Race/Ethnicity

- African American: 34%
- Caucasian: 40%
- Latino: 25%
- Missing: 1%
Biometric Characteristics

**OBESITY STATUS**
- Normal: 19%
- Overweight: 36%
- Obesity I: 25%
- Obesity II: 12%
- Extreme obesity: 8%

**HYPERTENSION STATUS**
- Normal: 21%
- Prehypertension: 41%
- Hypertension I: 26%
- Hypertension II: 9%
- Hypertensive Crisis: 3%
- Hypertensive: 26%
**Partnership Development Phases**

**Phase 1**
- Coalition contacts university to find a researcher for collaboration
- Initial meeting to determine compatibility and discuss collaboration
- Multiple follow-up meetings to:
  - Create project goals
  - Discuss partner roles and responsibilities
  - Develop research questions
  - Submitted first grant proposal to support research

**Phase 2**
- Received grant to support assessment of program impact at the individual level
- Collaboratively developed data collection method and tools to capture lifestyle and biometric data
- Collected and analyzed data
- Refined data collection methods and tools
- Submitted second grant proposal

**Phase 3**
- Received grant to continue assessment of program impact at the individual level and add assessment of policy, systems, environment impact
- Collaboratively developed data collection method and tools
- Data collection and analysis ongoing
- Further grants being explored to continue academic-practice research collaboration
Outcomes - Data Collection

- Designed excel spreadsheet for data collection

- Created short behavioral surveys
  - Tobacco use
  - Physical activity
  - Diet

- Created means to document referrals, use of resources, etc.
Program Impact- Linear Mixed Modeling

### Analysis

- Compared changes in systolic blood pressure (SBP), diastolic blood pressure (DBP) and body mass index (BMI)
  - Number of visits
  - Gender
  - Number of risks
  - Race (covariate)

### Statistically Significant Outcomes

- Caucasians have significantly higher SBP, DBP and BMI than Latinos
- Females have lower SBP/DBP
- # of visits affected SBP, at 12 visits SBP lowered by 6.25 mmHg
- # of visits affected DBP, at 13 visits lowered by 5.42 mmHg
Outcomes - Dissemination

• Podium and poster Presentations
• Two manuscripts underway
• Program replication toolkit developed and distributed
PSE Outcomes

Policy, systems, environment

• Cheaper healthy food options made available
• Health insurance/education documents translated into Spanish
• Institution of policy changes to create a tobacco free environment
• Sites funding screenings and access to community resources
Benefits, Challenges and Lessons Learned

Benefits:
- Academic partner and community partner have developed a shared vision for program success
- Academic-practice collaborations can support successful grant applications
- Information about program effectiveness can be documented and disseminated

Challenges:
- Data collection to support effective program evaluation can be difficult to implement related to multiple factors including time available to program staff and participants, language and cultural barriers, and technology
- Balancing the needs for research rigor with program and participant needs requires creativity and strong collaboration

Lessons Learned:
- It takes time to develop research strategies which will work at the community program level
- Communication is vital to success; terminology used must be understandable for all involved
- A shared vision based upon mutual trust is vital to the success of academic-practice partnerships
Conclusions

This partnership:

• provided data to indicate program effectiveness, increase program reach, and support grants and other funding at the individual, policy, systems and environment level

• created a strong academic-practice relationship to support program evaluation

• allowed community partners and researchers to learn from and influence one another

• encouraged partners to learn new ways of thinking about their own work

• provided opportunities for enhanced professional development