Education Beats Incentive$ for Healthy Food Choices

Jo Britt-Rankin, Candy Gabel, and Kimberly J.M. Keller
College of Human Environmental Sciences, University of Missouri

This project, funded through the University of Missouri College of Human Environmental Sciences Margaret W. Mangel Faculty Research Catalyst Fund was designed to assess the impact of nutrition education and the use of monetary support for food purchases on positive dietary behavior changes. This project relied on the Expanded Food and Nutrition Education Program (EFNEP) population, which is characterized as low-income (below 185 percent poverty). All participants were newly enrolled in EFNEP. Three treatment groups were established to compare the effectiveness of classroom education that included the addition of a hands-on grocery store tour, a $25 grocery store gift certificate to aid in the selection and consumption of fresh fruits, vegetables, and whole grains, and basic food resource management skills. The goal of this project was to demonstrate the effectiveness of incorporating grocery store tours into the nutrition education of EFNEP.

OBJECTIVES

1. 80% or more will improve at least one nutrition behavior related to dietary quality and physical activity.
2. 80% report implementing one or more food resource management practices to effectively use their food dollars.
3. 40% will sustain increased consumption of fruits and vegetables, low-fat dairy products, and whole grains two months following the conclusion of the education.
4. Participants who received a grocery store tour as part of their education will show more improvement in nutrition behaviors related to dietary quality and food resource management than those who receive classroom education only.

METHODS

This project assigned EFNEP participants in the Kansas City and St. Louis metropolitan areas to three treatment groups. Standard EFNEP evaluations were used to evaluate the study. Participants completed a 24-hour diet recall and a food behavior checklist during the first and final class sessions. Participants were asked to repeat the checklists two months following their final class to determine if their behaviors were sustained. Data was analyzed using the NERS 5 database that is used nationally with EFNEP participants.

TREATMENT GROUPS

TREATMENT 1
- Received a minimum of six Smart $4 meals
- Received a minimum of six Smart $4 meals
- Completed a pretest, post-test and 3-month follow-up evaluation, which includes a dietary recall and behavior checklist.

TREATMENT 2
- Received a minimum of six Smart $4 meals
- Completed a pretest, post-test and 3-month follow-up evaluation, which includes a dietary recall and behavior checklist.

TREATMENT 3
- Received a minimum of six Smart $4 meals
- Completed a pretest, post-test and 3-month follow-up evaluation, which includes a dietary recall and behavior checklist.

RESULTS

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Percent of participants improving at least 1 nutrition behavior</th>
<th>Percent of participants improving at least 1 food resource management</th>
<th>Percent of participants who have a positive change in any food group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment 1</td>
<td>67%</td>
<td>65%</td>
<td>100%</td>
</tr>
<tr>
<td>Treatment 2</td>
<td>73%</td>
<td>67%</td>
<td>93.3%</td>
</tr>
<tr>
<td>Treatment 3</td>
<td>79%</td>
<td>74%</td>
<td>95.8%</td>
</tr>
</tbody>
</table>

The table above addresses the first three objectives of the project. For Objective 1 and 2, positive behavior change was seen, however, not at the expected rate. There was also no significant difference between treatments. For Objective 3, the number of participants who made a positive behavior change within one or more food groups was well above expected rates for all treatment groups.

Objective 4 indicated that those who received a grocery store tour or a tour and gift card would significantly improve their behavior related to nutrition and food resource management. Overall, we saw little difference between the three treatment groups.

CONCLUSIONS

The study shows that regardless of treatment, participants report improvement in dietary choices, however, no significant differences were seen between groups other than the vegetable intake among Treatment 2 participants and grain consumption among Treatment 3 participants.

Although further studies are recommended, this study indicates that a monetary gift card incentive does not improve behavior change significantly. This study appears to indicate that classroom education (7 lessons or greater) provides the greatest influence on EFNEP participants. The addition of a grocery store tour and/or a monetary incentive do not significantly impact behavior change.
effectiveness of incorporating of grocery store tours into the nutrition education of EFNEP.

This study shows that regardless of treatment, participants report improvement in dietary choices; however, no significant differences were seen between groups other than the vegetable intake among Treatment 2 participants and grain consumption among Treatment 3 participants.

Although further studies are recommended, this study indicates that a monetary gift card incentive does not improve behavior change significantly. This study appears to indicate that classroom education (seven lessons or greater) provides the greatest influence on EFNEP participants. The additions of a grocery store tour and/or a monetary incentive do not significantly affect behavior.

Improving Classroom Instruction: Alabama Math, Science, and Technology Initiative

Elizabeth Hickman, AMSTI-AU, Auburn University

The Alabama Math, Science, and Technology Initiative (AMSTI) is the Alabama Department of Education’s initiative to improve math and science statewide. A committee comprised of lead K–12 teachers and administrators, higher education representatives, and business leaders designed the program. Its mission is to improve student learning by providing all students with the knowledge and skills needed for success in the workforce and/or postsecondary studies. AMSTI currently serves about 50% of schools in the state. There are 11 sites in the state, each partnered with an institution of higher education. Each site serves the schools in a particular geographic location or region. Sites resemble large warehouses where materials are stored. Additionally, AMSTI sites provide office space for staff and meeting spaces for professional development. Schools apply to become official AMSTI schools and, when accepted, agree to send all of their math and science teachers and administrators to two-week summer institutes for two consecutive summers. Participation is voluntary. Professional development, hands-on materials, and on-site support are three key services provided to schools. Professional learning teams are another dimension of support being developed. Team members learn about leadership and will be key in promoting and sustaining change in instruction throughout the schools. AMSTI also includes a pre-service component for elementary education majors at partner institutions of higher education. A three-year longitudinal study showed AMSTI had statistically significant positive effects on student learning in math, science, and reading. AMSTI is gaining national and international recognition as the most comprehensive math and science initiative in the nation.
Research shows many mental health disparities in rural communities. Rural residents are at-risk for depression, suicide, and substance abuse. The West Alabama Mobile Unit project aims to enhance engaged scholarship and establish a community/university partnership in Alabama’s Black Belt region to deliver accessible, innovative, and quality mental health care for rural residents.

Method. Collaborations were established between The University of Alabama, the West Alabama Mental Health Center, and local community agencies in Alabama’s Black Belt region. An innovative approach to enhance rural mental health was developed through engaged scholarship by forming an interdisciplinary health care team to deliver mental health services using a mobile unit. Faculty and students from departments of psychology, social work, nursing, rural medicine, and communication participated in service delivery and proactively cultivated a reciprocal partnership with West Alabama rural communities.

Results. With the partnerships from local community agencies, the interdisciplinary team has successfully conducted mental and physical health screens to 2056 residents via mobile unit services in six Black Belt communities. The community partners contributed to the anti-stigma campaign by assisting with recruitment and providing resources. Strategies to overcome barriers and to engage rural residents in mental health services include: 1) collaborating with persons of and from the community in developing interventions, support groups, and outreach efforts, 2) understanding and respecting community-based-based values and

Conclusions

Scholarly Merit of the Mobile Unit Project

Objective I: Partnering w/Local Communities

Summary of Project Outcome

Table 1. List of Local Community Partners in Black Belt Counties

<table>
<thead>
<tr>
<th>Communities/County</th>
<th>Local Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akron/Hale County</td>
<td>Akron Senior Center</td>
</tr>
<tr>
<td>Boligee/Greene County</td>
<td>Bolligee Town Council</td>
</tr>
<tr>
<td>Eutaw/Greene County</td>
<td>Eutaw City Park</td>
</tr>
<tr>
<td>Fumdale/Marengo County</td>
<td>Fumdale Post Office</td>
</tr>
<tr>
<td>Greensboro/Hale County</td>
<td>First Presbyterian Church</td>
</tr>
<tr>
<td>Newbern/Hale County</td>
<td>Volunteer Fire Department</td>
</tr>
</tbody>
</table>

Figure 1. Collaborating Efforts between University and Community
cultures, 3) providing year-round services to rural communities to build up service stability and trust, 4) making services accessible and affordable, and 5) assuring confidentiality.

Conclusion. Engaged scholarship provides valuable training opportunities for faculty and students to serve rural communities. Using innovative strategies such as partnering with local community agencies in rural Alabama to deliver mobile healthcare is crucial to enhance mental health for the rural population.

Voice Matters: Lessons Learned from Women in a Historically Marginalized Community About the Importance of Engaging Community As Research Partners

Michelle Laws, Department of Social and Behavioral Health, Virginia Commonwealth University School of Medicine

Despite decades of research, health education, promotion campaigns, and behavioral interventions targeted at improving the disparate health outcomes in the Black community, Black women (and men) continue to share a disproportionate burden of disease and deaths. Researchers have found compelling evidence that social determinants are critical factors contributing to the persistence of health disparities in African American communities (Braveman, 2012; Braveman, Egerter, & Mockenhaupt, 2011; David, R., & Messer, L.; Hayward, Miles, Crimmins, & Yang, 2000).

Population-level determinants such as social networks, core geographic areas, segregation, health care provision, under or no insurance, socioeconomics and poverty, and correctional experiences are interrelated and seem to play an important role in health disparities (Barrow, Newman, & Douglas, 2008; Secretary’s Advisory Committee on National Health Promotion and Disease Prevention Objectives for Healthy People 2020, 2010).

However, all too often health interventions and research studies are designed without the input of the populations they are designed to treat or help. This seems especially true when the poor are the research subjects. This exclusion of the target population at the front end of the research process often lead to ineffective interventions that show little or no effect in terms of creating positive change in health behaviors and health status. Further, with a specific focus on using service learning to engage students in communities that are fertile with research opportunities, there is a need to better understand how to connect students with community partners and stakeholders in a way that promotes mutual respect and symbiotic learning experiences. Cruz & Giles (2000) (in Stoecker & Tryon, 2009) argue: “There are claims of the positive impact that service learning has on communities, but as we find, there is much less research to back up those claims.” Using service learning as a primary step in a community-engaged research project can help to close the gaps in the literature. The research questions this study seeks to answer are:

1) How can service learning benefit community-engaged research? 2) Can a community engaged approach be effectively carried out in a semester-long service learning class? 3) What are the challenges and rewards of a community collaborative approach for a student? 4) What are the challenges and rewards when community partners are engaged in the research process through a service learning project?

Results from this research include the development and administration of community women’s health and needs survey, which was created in collaboration with women in the community and the student researcher; based on preliminary analysis of survey data (n=35 African American women, aged 18 and older) common themes emerged from question about most pressing health needs of women including need for STD prevention and birth control/pregnancy prevention; established partnership with public health and public housing officials who expressed interest in using findings to inform development of health services for women in community; and the student used service learning project as background to write grant to launch larger-
scale, IRB-approved research study on women’s health needs and barriers to health services (study currently underway). The challenges included time constraints (e.g. balancing research and course work); unexpected changes in terms of stakeholders (lead community outreach worker who played vital role helping researcher to gain access to women left her position with the lead community agency); and the burdens in terms of feeling overwhelmed and helpless by confronting the multiple social and health disparities and needs many women endure living in historically marginalized communities.

References


Braveman, P., Egerter, S., & Mockenhaupt, R. (2011). Broadening the focus: The need to address the social determinants of health. Journal of Preventive Medicine, 40(1S1), s4-s18.


Secretary’s Advisory Committee on National Health Promotion and Disease Prevention Objectives for Healthy People 2020. (2010). Healthy people 2020: An opportunity to address social determinants of health in the U.S.

Evidence of service-learning’s impact on civic and community engagement behaviors is generally restricted to short-term evaluations of student learning outcomes (Eyler & Giles, 1999; Vogelgesang & Astin, 2000). While previous studies have examined the effects of service-learning and volunteering on students’ civic behaviors after college (Astin et al., 1999; Fenzel & Peyrot, 2005; Warchal & Ruiz 2004), few compare results with alumni who did not participate in service-learning.
(Astin et al., 2006), and no available studies control for consistently defined and implemented service-learning experiences. In this study, survey research examines the long-term effects of service-learning participation on civic engagement behaviors and beliefs of students enrolled in a specific service-learning course at one institution from 2004-2011 compared to a similar population of alumni who did not take a service-learning course.

In 2002, a course entitled "Project FOCUS – Fostering Our Community's Understanding of Science: Service-Learning Experience" was created at the University of Georgia in collaboration with the local public school system. Each semester, university science students and elementary school teachers are partnered to enhance science education in grades K-5. This study of Project FOCUS and a comparison group of alumni builds on Astin et al.'s (2006) study of a national sample of alumni who participated in service-learning experiences during college. Civic leadership, charitable giving, and overall political engagement were all identified as being more common among individuals who had participated in service-learning compared to those who had not. However, Astin et al.'s (2006) national sample could not control for different teaching styles, reflection strategies, service experiences, definitions of service-learning, and service-learning course design. Since its inception, Project FOCUS has had the same structure, syllabus, reflective journal requirements, service requirements, and community partners, allowing researchers to control for these variables.

Participants in this study included all students who enrolled in Project FOCUS from 2004-2011 (475 alumni). The comparison group of alumni graduated with comparable majors during the same time period (2000 alumni). 187 alumni completed the survey; 87 of these respondents were FOCUS alumni (a 23% response rate), while 100 were from the comparison group.

Results indicate that after graduation, individuals who participated in Project FOCUS were more likely to continue involvement with community and civic engagement activities. FOCUS students reported greater participation in all survey categories measuring work with communities and volunteer activities, including working on community projects, assisting in solving community problems, and serving in leadership roles. Participants also reported stronger affinity to their alma mater as a result of the experience. They were significantly more likely to attend alumni events, use an alumni association for professional and social support, and recruit others to attend their alma mater. They were also more likely to donate money to an educational organization. Study results provide valuable evidence to support claims of significant long-term civic benefits resulting from service-learning experiences. Results also have implications for how higher education institutions view and support service-learning experiences in order to cultivate long-lasting relationships with alumni.

References


At NOSC 2012, initiatives by East Carolina University (ECU), Miami University (Ohio), Colorado State University (CSU), and North Carolina A&T State University were named regional recipients of the 2012 Outreach Scholarship W.K. Kellogg Foundation Engagement Award.

In the South Region, ECU’s Intergenerational Community Center was the ultimate 2012 recipient of the C. Peter Magrath University/Community Engagement Award for creating a dynamic community center that meets the urgent needs of the underserved community of West Greenville, N.C. ECU’S project, the Lucille W. Gorham Intergenerational Community Center, received the $20,000 award and trophy during the 125th APLU Annual Meeting in Denver in November 2012.

Established in 2006, the Outreach Scholarship and Magrath University Community Engagement Awards recognize four-year public universities that have redesigned their learning, discovery, and engagement functions to become more deeply involved with their communities.

Award finalists come from four regions—South, North Central, West, and the 1890 university community (historically black land-grants). Each received a cash prize of $6,000.

“These four projects exemplify the broad principles of outreach and engagement with the community and surrounding region embraced today by the public university community,” said APLU President Peter McPherson. “We salute these outstanding initiatives that stand as model engagement programs for colleges and universities nationwide.”

The national winner this year, from the South region, provides a comprehensive community-based system of services to residents of Greenville, N.C. that address a wide range of needs, including: educational programs, parenting classes, and helping juvenile offenders return to the community. The center is used for community meetings, strategic planning, and community-based research. Some of the key programs making a difference at the center include prevention and intervention in gang involvement; providing substance abuse counseling; and assistance with domestic violence, criminal activity, grief, racial disparities, and unemployment. The center also provides job training and apprenticeships, social activities, health screenings, and a variety of programs for all ages. The center is a partnership between ECU, the City of Greenville, Pitt Community College, and other community organizations. Kerry Littlewood is the center’s executive director.

Miami University received the North Central region award for its Center for Community Engagement’s Over-the-Rhine Residency Program. Twelve students integrate academics with a full immersion experience to live and work in the “school of social life” for a full semester in the Cincinnati neighborhood of Over-the-Rhine. Each week students perform 15 hours of service at one or more nonprofit organizations within the community, including medical clinics, affordable housing developers, schools, homeless shelters, and advocacy groups. The center’s firm conviction is that learning in support of broader community transformation is best served by direct social engagement that generates learning and knowledge based upon social participation within a cultural community of color.

The West Region Award went to CSU Crowdsourcing, Climate Change and Student Science: The Community Collaborative Rain, Hail and Snow Network won the West region award. In less than 10 years, this award-winning program has grown from one local community project to a nationwide crowdsourcing program engaging over 15,000 participants. Students of all ages at over 100 schools perform research, analyze data, and become future innovators for environmental and social issues. The resulting index of rain, hail, and snow measurements is publicly available at www.cocorahs.org. Its unique approach to data collection and research has made it one of the most innovative citizen science programs in the nation.

The 1890 region award was given to North Carolina A&T State University in partnership with North Carolina State University for Building a Sustainable Local Food Economy in North Carolina through Partnership and Engagement. The Center for Environmental Farming Systems (CEFS), along with the North Carolina Department of Agriculture and Consumer Sciences found itself in the middle of a brewing crisis between agricultural and environmental groups demanding land-grant universities do more to help protect fish and waterways from hog containment facility spills. CEFS partnered with the groups to find positive ways to alleviate conflicts and tackle the emerging environmental issues. The partnership led to the creation of NC Choices, which promotes the advancement of local, niche, and pasture-based meat supply chains by facilitating educational and networking experiences for producers, processors, food professional and buyers. The project has built trust and laid the groundwork for future cooperation between the universities and engaged diverse partners, including the Carolina Farm Stewardship Association, the North Carolina Farm Bureau, the Environmental Defense Fund, and many others. The partnership has since expanded to include hundreds of nonprofit organizations, businesses, associations, and state agencies. In addition to the regional winners, the following projects were deemed exemplary and worthy of recognition:

- **South Region.** Should to Shoulder Global: Improving the Health and Well-Being of Resource-Poor Communities in Ecuador, University of Kentucky. Knoxville Homeless Management Information System.
- **North Central Region.** Green Energy
Technologies, Michigan State University. Community Economic and Entrepreneurial Development Program, University of Missouri.

- **West Region.** Living with Fire, University of Nevada Cooperative Extension. Lionel Hampton International Jazz Festival Mentors and Masters: Partners Shaping Tomorrow, University of Idaho. Sustainable City Year Program, University of Oregon.