Creating Healthy Nutrition and Access in the Inner City with Community Gardening
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ABSTRACT:
Today East St. Louis, IL, is a city of 28,000 residents who live in a food desert and abject poverty and violence. But in 1958 East St. Louis was named one of the most beautiful cities in the United States.

Students from SIUE Nursing School performed a Community Health Living Index (CHLI) assessment in order to implement a healthy lifestyle and activity program in a zip code. Engaging residents was a vital and critical aspect of the project. After meetings in the homes of residents the idea of a cleanup of trash and discarded tires which litter the city became a mutually agreed upon outcome.

Working with other universities, nursing students were able to participate in multi-discipline, community based approaches to the renovation of an existing Jones Park greenhouse and the building of raised growing beds. Eight months after community garden opened, the vegetables, herbs and flowers (raised from seeds) are thriving and providing food sources and plants for residents to start their own gardens. Jones Park gardens provide resources to the residents for seeds, seedlings, plants, trees and garden coaching.

A formalized resident and academic partnership was formed and named the Green Partnership. The partnership is active within the community with many activities: health fairs, planting demonstrations, mentoring new gardeners, produce give-a-ways, support to homeless shelters with produce and education to children on gardening.

The second arm of the Green Partnership is the East Side Health District (ESHD), which serves as the public health department for East St Louis. ESHD has been involved in community gardening for 15 years. Today their efforts are the teaching garden and orchard located at the health department offices. Future plans include a teaching kitchen that will offer demonstrations on cooking, canning, freezing and drying produce.

The third component is the school system and placement of gardens. Today, two schools have gardens which serve as teaching environments for science, math and biology classes. The schools use the produce in preparing school lunches and snacks.

A fourth aspect is the inclusion of the public housing population. This past summer five new gardens were developed in housing using "lasagna" gardening, in which layers of organic materials can be placed on top of any subsurface, including paving and contaminated soils. Additional gardens using discarded tires as planters will provide beds for potatoes and carrots.

The efforts of the residents and others in the Partnership are very involved. Interest in healthy eating, access to fresh produce and the social exchange and generational cross pollination is extending the mission of the Green partnership beyond what could have been attempted by a few.

The City of East St. Louis is celebrating its 150th birthday this year. The community gardens project is generating a significant amount of positive feedback in the community. Residents and community leadership view the gardens project as the hope for improving and re-beautifying the city.
**EDUCATIONAL METHODS OR APPROACHES USED:**

Translating public health theory into practice following the public health core functions to plan the program, along with employing the Minnesota Model as a "working framework," enabled students to experience immersion in the model which created individual commitment to learning. The Minnesota model is based on the ecological approach that consists of population/community focused interventions. The model is intended to create an environment that promotes health, prevents disease and disability. The interventions employed at this phase of the program’s development included: advocacy, social marketing, community organization, coalition building, collaboration and consultation. Phase II will continue with the current interventions, but begin to become proactive in further program and policy development.

Students used weekly reflections on the project using Carper’s Ways of Knowing to evaluate and reflect on the public health nursing course curriculum which focuses on the Healthy People 2020 objectives. Students applied the objectives related to the various aspects of the program’s development.

Ways of knowing are instrumental in providing students a framework for viewing and contemplating the experiences in the learning process. The ways of knowing incorporate the parameters of aesthetics, empirics, experience and ethics in order to critically analyze the experience. Students reflect by exploring the experiences through each of the four ways of knowing. This method enriches the learning as the student comes to realize the aesthetics and evidence-based aspects of the experience. Retrospective contemplation of the actual experiences provides deeper analysis into what occurred, who was involved, how environmental, genetics, economics, political influences impacted the sphere of that experience. Further, it brings application of ethical theories that should be factored into evaluation and future planning. The students reported they felt invested and came away with new insights into medical conditions and the environmental/public health role impacting the health disparities and resulting outcomes. Our public health nursing course curriculum focuses on the Healthy People 2020 objectives. Students applied the objectives related to the various aspects of the program’s development. As the next phases roll out, additional objectives will be applied as appropriate.

**PROJECT DESCRIPTION:**

Students in public health nursing clinical experiences are required to produce a project in the community. After performing the community assessment as a group assignment, the students created a collaborative plan with the community residents and local stakeholders. They also set a mutually agreed upon timeline for implementation. The plan was later developed into a five-year plan with annual goal achievement benchmarks and classes of students now perform annual evaluations of these achievements, reassess the goals and set benchmarks for the coming year.

Quarterly strategic priorities are assigned to the students in nursing as well as to community and collaborating universities that include the Urban Research Institute of Southern Illinois University Edwardsville, social work students from Washington University, University of Illinois Schools of Informatics and Urban Research. Key success factors are the students working in diverse populations while learning first-hand the barriers and obstacles facing the population’s health; creating trust and relationships in the community between residents and with academia that is a "living partnership", resident involvement and awareness of the assessment but actual implementation of a viable program being done cooperatively with them and not to them; advancing the concept of health literacy with social marketing that has created a sense of pride, ownership, and empowerment among the city’s residents.

The public health nursing curriculum for clinical rotation was previously limited to visiting a Public Health department and rotating through the department’s service offerings (WIC, communicable
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diseases, environmental services, and home visits to high risk pregnancy). Typically, a community assessment was completed during the course.

Since implementation of this program, didactic curriculum on Public Health core functions and population issues and management has remained as before. Using the approach of the healthy communities has created a "living the theory" model and afforded deeper understanding and appreciation of the Healthy People 2020 objectives.

Students have also critiqued this approach in evaluations and have stated that the clinical project was a rich learning experience. Reflections, required weekly during the course, show that students have ownership, pride, and commitment to fostering the work at the community level as well as transfer learning to how and why public health impacts individual-level health.

This program also has expanded into the pediatric nursing curriculum. Within the SIUE academic community it has increased collaboration, with engineering, urban studies, student organizations and general university support. The program has expanded to include other universities in the St. Louis metro area. Students of social work, engineering, political science, business, architecture, horticulture, education, economic development and marketing are involved in the numerous components and work groups of the Green Partnership.

The core community agencies involved include to date: the county and local health departments, school districts, city and park administration, school districts, universities, county water department, police departments, housing developments, faith-based organizations and local media outlets (newspapers, cable and network news outlets).

HEALTHY PEOPLE OBJECTIVE ADDRESSED:
In addition to Healthy People 2020 objective ECBP-12-16: Increase the inclusion of core clinical prevention and population health content in health professions education; the Healthy People 2020 objective addressed by the community gardening program is nutrition and weight status. Specific details include: NWS-2.2, NWS-4, NWS-5.1, NWS-5.2, NWS-8, NWS 10, NWS 11, NWS 14, and NWS 15. The objectives are being met by the program implementation, strategic planning for expansion across the city, into schools and neighborhoods and housing projects. Additionally, the Community Nursing Center monitors and provides surveillance on health status data (height, weight, BMI) for children and adults. This is accomplished by comprehensive and inclusive clinical practices of faculty and nursing students.

PROGRAM OR COURSE GOALS:

Number of students enrolled/participating in 2010-2011 school year: 120

This program supports public health clinical rotation requirements. This program is one project that students may select to work on throughout the clinical course.

Did you conduct a needs assessment as part of your planning process?

☒ Yes ☐ No

Results of our assessment were on-target with the resident needs. Creating mutually agreed upon plans and strategies were critical to building this program. Development of the working together as opposed to "we are doing this for you or to you" approach is far more successful.

The most important learning point has been this: All people want the best for themselves and their families. Barriers arise when individuals feel powerless. Teaching with a true partnering and empowering approach along with encouragement and mentoring can and have made tremendous changes and health outcomes.
PROFESSIONS INVOLVED:

Kathleen Thimsen RN MSN Director of Community Nursing Clinic, Charlotte Chance MSN, Cheryl Jackson, Nathalie Williams MSN PhD (all public health nursing faculty); Elizabeth Patton-Whiteside BSN MPH, Ruby Allen-Ellis MPH; Bhagha Kolli RD MS all from East Side Health District; Dean Marcia Maurer and Associate Dean Anne Perry; Dr. Virginia Cruz. In addition to the key stake holders, Betty and Kamina Loveless, Jacob Loveless, Juanita Russell, Edna Patterson-Petty represents the community residents. Representatives from the Housing Authority and School District are also members of the Community Garden Program.

In an effort to proceed with gardening in the K-12 schools, the group is beginning work to incorporate curriculum that will be integrating math, biology, environmental and social studies into grade school and high school education.

Students enrolled at Southern Illinois University Edwardsville are required to perform community service work. As part of the requirement, students have been involved in learning from service and have continued participating as volunteers once the service has been completed.

The collaboration between nursing, social work students and residents of the inner-city have cross pollinated ideas, plans, and the sharing of perspectives. As a result of those relationships, the program has become stronger as the broad array of theory, ideas, and work enriched the evolving program. It is with the strength of the trust in the partnerships that have been formed that sustainability is being addressed.

LESSONS LEARNED/EVALUATION RESULTS:

Outcome measurement has been evaluated by several factors: 1) Community involvement as measured by attendance and participation in programs and events, 2) Logs are kept on the number of people coming to the gardens for food or plants/seeds on a weekly basis, 3) Local convenience store owners coming forward to carry produce for purchase, 4) Schools requesting gardens to be built and Housing projects requesting gardens to be built.

Greatest Lesson: Vulnerable populations are rich with people who want the same as everyone else, yet have tremendous obstacles. Mentoring goes farther to create change than "teaching at people"

PATIENCE!!! Is a virtue

Engagement creates sustainability

Challenges include lack of funding...but we are making it work...it is just slower growth

CONCLUSION:

In an effort to support sustainability we are developing a variety of "Gardening Toolkits". There are versions to address gardening in schools, neighborhoods, faith based and city centered gardens. Having the model of garden center for teaching the basics and having resources available along with the teaching garden and kitchen is a novel approach to making it simple and accessible for all persons to participate. Sustainability of the infrastructure and the strategic plan have been carried forward by the formation of the Green Partnership (a not-for-profit), formed by community residents and metropolitan organizations. The Green Partnership is further supported by the application and funding for grants. The incorporation of an economic model component continued social marketing and community engagement by students of the various universities along with the city administration is focused on the five year plan becoming fully realized. A pearl to share: go to the people and find heroes.
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COMPANION MATERIALS: (Course syllabi, resource lists, tests, website, etc.)

Syllabi

Project Q&A

Grading Rubric for project

Student projects (power points)

PUBLICATIONS:
None to date on this program

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