

PLANETARY HEALTH, ONE HEALTH, AND ENVIRONMENTAL SUSTAINABILITY

Exploring Community-Supported-Agriculture Farmshare Programs; Need for reinforcing better Lifestyle Choices especially in Disadvantaged Population Settings

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Background: The rising obesity and associated co-morbidity problems the United States has indication for a multi-sectoral approach of which expanding healthy food alternatives and improving their accessibility are pivotal. The perceived or reported non-affordability of healthier food options in Community-Supported-Agriculture programs compared to global-scale retail fast-food options especially in people living below poverty line may also compound the obesity epidemic. The carbon/ecological footprints associated with global-chain-retail-mechanized agriculture also impacts the ecosystem which is not spared from their aftereffect.

Methods: One hundred and eighty-two participants (one-per household, aged at least 18 years) were enrolled in an eight-week Mixed, Longitudinal, Quasi-experimental study with two groups: Group-I: received free weekly Farmshare produce, they participated in a weekly one-hour health education class, and in another one-hour of weekly physical activity session (PAS). Group-II: Attended a weekly one-hour PAS. Comparing theory of planned behavior construct (TPBC) scores of participants at baseline and after eight weeks of the study between the groups, we completed a paired *T*-test analysis to explore interventions' implications. Using grounded theory approach, we completed focus groups, and guided interviews (n=15) to explore factors influencing participants' produce choices and how identified barriers precluding healthier food choices could be addressed.

Findings: The intervention participants' perceived behavior control (PBC) and behavior intention (BI) scores improved significantly after eight weeks [Mean PBC scores diff: 3.69, SE=0.79, *t*(45)= -2.41, *p*=<.001; Mean BI scores diff: 3.41, SE=0.83, *t*(45)= 4.13, *p*=<.001], however, comparison participants (Group-II) attitudes to healthy eating appeared to need significant reinforcement [Mean diff: -1.05, SE=0.44, *t*(42)= -2.41, *p*=.02]. Factors influencing respondents' produce choices included: cost, time (preparation), inaccessibility, preferences, and lack of awareness. To encourage participants' engagement, respondents indicated for farmers to: have flexible payment plans/pricing; increase variety; and incorporate components like cooking demonstrations, recipe samples, etc.

Interpretation: Approaches to sustain and engage populations with limited economic means in Community-Supported-Agriculture programs need continual reinforcement and infrastructural/institutional support. Utilizing assistive food-vouchers to participate in these programs may help to engage economically challenged/

disadvantaged populations. Policies that emphasize and/or promote accessibility to healthier alternatives are much needed.

Source of Funding: Kaiser Permanente. First-5. Healthy San Bernardino Coalition. Loma Linda Hulda Crooks Research Grant.

Abstract #: 1.001_PLA

Community Perception of Solid Waste Management (SWM) in Dhaka, Bangladesh

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Background: Managing Solid Waste in the rapidly growing city of Dhaka, the capital city of Bangladesh is a great concern. The municipal organization responsible for solid waste management (SWM) has tried different approaches to address the SWM challenges, however more research is needed to find more affordable, acceptable ways to manage waste. Presently the waste from households, markets, and restaurants is collected together, and waste collectors separate organic waste and inorganic waste without any safety measures. Only 50% of waste generated in Dhaka is being managed by the City of Dhaka itself. The remaining half is scattered around the city, creating health hazards for everyone in the city. To effectively and equitably manage waste in Dhaka, more research needs to be done regarding how citizens manage their waste, what sorts of waste they create, what they're doing with their waste now, and what they would be willing or able to do.

Methods: We used qualitative research methods to understand the knowledge, practice and attitude of community on solid waste management. In-depth individual interviews and focus group discussions were utilized. We followed purposive sampling methods, and we identified three areas based on the income level of the residents to conduct interviews of 30 members from 30 households. Low- and middle-income households will be purposefully oversampled, as these households are the most burdened by the health hazards of unmanaged waste and also have the most to gain from effective, affordable SWM.

Findings: From our findings, we found that people around the community are generally not concerned about waste and do not worry about the waste reduction or reuse issues. Most households recycle paper, plastic or tins, however composting as a means of disposing of organic waste is relatively unknown.

Interpretation: It is clear that environmental sustainability requires education in the community.

Source of Funding: Independent University, Bangladesh and University of Maryland, USA.

Abstract #: 1.002_PLA