Grant Project- Cover Sheet

Project Title: **Community Program to Reduce BMI in Preschooler in Butler County**	
Grant Team Members	
Name	Role in the project
Corinne Smith	Director
Megan Beyer	Supervisor
Maggie Dankmyer	Investigator
Salome Beyene	Coordinator
Topic Area : Obesity Prevention and Reduction o Preschoolers/Head Start	
Amount of Funding Requested: $23,640	
Brief description of your program (abstract):The purpose of our community program is to decrease the BMI of preschoolers in Butler county as well as educate parents on nutrition topics. The goal of this intervention is to reduce the obesity rate in preschool children of Butler County and increase nutritional knowledge for the parents of these children. The process objective requires 50 adults to attend six sessions of nutrition education taught by local dietitians in Butler County over a two-week period. The first short term objective for preschoolers in Butler County is to increase general nutritional knowledge by 50% measured with a pre and post kid-friendly survey. The second short term objective is to increase fruit and vegetable consumption by two servings over a six-month period by incorporating the importance of healthy eating in various settings measured by monthly parental-advised food logs. These objectives will be accomplished by using a multidisciplinary approach that includes three areas of intervention. Our program will consist of weekly open gym time, a gardening club, cooking classes, and nutrition education for parents, all of which will be free of charge to the participants. The activities will be led by local dieticians, facilitators and volunteers. We expect the outcomes to increase parental nutrition knowledge, decrease BMI in preschool participants with increased physical activity and consumption of fruits and vegetables.	

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Introduction/ Literature Review

Obesity in preschool children is defined as a BMI greater than the 95th percentile based upon the CDC growth chart (CDC, 2015). In 2011-2012, 8.4% of children ages 2-5 were considered obese (CDC, 2014). In our community the statistics are even greater than the national average. Specifically in Butler County, in February 2014, 17.5% of 2-5 year olds were considered overweight compared to the Ohio state average of 15.7%. In comparison the rate of obesity for children 2-5 years old was 14.6% in Butler County, and 12.4% in the state of Ohio (Ohio Department of Health, 2015). Obesity is a problem in children because children are more likely to have adverse health conditions including hypertension, dyslipidemia, type 2 diabetes, and asthma. In addition, they are at greater risk for social and psychosocial problems, and decreased school performance (Foltz, 2012). Also children who are obese are more likely to be obese as adults, which result in even greater health risks (CDC, 2014).

Based on previous successful programs, we would like to use a multidisciplinary approach that focuses on three environments including home, community, and an early care education center. A multidisciplinary intervention is extremely important in the long-term effects for decreasing obesity based upon BMI (Bocca, 2013).

I. Community

There are many community resources that would be utilized, including gym facilities for families, hosting positive parenting classes, and increasing fresh produce to be sold at childcare facilities. Based upon a program that was paired with Northeastern University, the community had free weekly open gym hours on Saturdays that would provide a safe, free location to families at the local community center, or recreation center, that was staffed by university students (Agrawal, 2012). This was a great opportunity for a fun family activity, and encouraged children to receive 90 minutes of physical activity. Parents play a vital role in their child's development, and are key players in obesity prevention by reducing the risk factors since they control the environment and majority of food choices (Chaufan, 2015). More specifically, a mother has a huge influence on the development of her child, which starts when she decides whether or not she is going to breastfeed. Research shows that exclusively breast feeding can result in increased satiety and food regulation in early childhood, affecting the child as they develop (DiSantis, 2011). Also, a low-income mother's aspirations regarding their child's health has been proven to revolve around three themes— decreasing hyperactivity, preventing dental caries, establishing structure—all of which are great aspirations, but there are none that focus on the child's health and weight specifically (Herman, 2012). Therefore, parental education on nutrition and related knowledge is necessary. Local resource centers will provide classes focusing on basic nutrition and food choices as well as

effective parenting skills. Local registered dietitians, as well as nutrition students, would provide the nutrition education.

II. Early care education center

Because most children spend a majority of their time at a care facility, it is important to instill positive health behaviors in this environment where caretakers or teachers can be positive role models for the children. When children gardened at school, which included growing, harvesting and tasting fruits and vegetables, it resulted in children adopting healthier eating practices. Also, gardening created a positive effect on children's attitudes toward food and the social environment in the classroom (Chaufan, 2015). The produce grown in the garden would then be sold at the education center to provide extra convenience for the parents, which would encourage parents to take the produce home and incorporate it into their children's meal. When children are able to recognize that they grew the produce their parents are using, a "culture of health" is promoted, which creates a team approach from the classroom to the home environment. A food based intervention that placed fruits and vegetables where the parents were picking up their children resulted in increased consumption of fruits and vegetables by children (Carroll, 2011). There has been a correlation between the increased amount of fruit juice, with an average of 10 ounces per day, and the decreased intake of milk, fiber, whole fruits and vegetables, which eliminates essential nutrients from their diet. From the Child and Adult Food Care Program (CAFCP) which is part of the the Hunger-Free Kids Act, the program will eliminate 100% fruit juice from day care facilities (Wojcicki, 2012). Also, within childcare facilities, children's snacks that are provided should revolve around portion size, and not energy density because previous research showed a greater reduction in BMI when portion size was stressed over caloric density (Looney, 2011).

III. Home

It is important to correlate a healthy lifestyle in a home setting because this is where most life lessons are picked up. Families that promote effective parenting, had children with lower BMI and improved health behaviors as they approached adolescence (Brotman, 2012). Anderson (2010) conducted a study in which preschoolers were exposed to three household routines: regularly eating evening family meals at least five times a week, reduce screen time to at most two hours per day, and obtaining adequate nightly sleep on weekdays for at least ten hours. When exposed to all three of these household routines, it resulted in a 40% lower prevalence of obesity than those who did not follow these lifestyle regimes. Another study specifically showed that preschoolers who participated in long term physical activity, such as Hip-Hop classes, over a period of fourteen weeks, three times per week, resulted in lower BMI, improved diet, and overall physical health (Fitzgibbon, 2006).

Evidence shows that parents who do not recognize that their young child is truly overweight, and underestimate the severity of their child's obesity, may be less likely to perceive this as a problem requiring intervention. When asked, one-third of parents reported minimal to no concern about their child's weight despite the severity of the BMI (Bauhghcum, 2015). In a study developed by the Department of Pediatrics at University of Colorado, the utilization of clinic and home visitations were used to reduce overweight preschoolers. Treatment was focused on teaching parents to use behavioral child management strategies to systematically implement dietary changes across drinks, snacks, meals, and increase in physical activity. There was evident parental perception that they were depriving their children when reducing, or eliminating, fast foods. Children who completed the intervention showed a decrease in BMI at the end of the treatment (Boles, 2010). This is a clear indication that by implementing parental skills with respect to children's nutritional health, a bridge can be created to improve the overall future well being of overweight/obese children. In another study that explored the associations between parent and child relationships, they measured children's BMI, maternal depression, parenting techniques, children's impulsivity and approach to eating. It was shown that negative parenting was related to a high level of child impulsivity, which predicted greater food consumption, and in turn an increased BMI (Braungart-Ricker, 2014).

Based upon the reviewed research, the goal of this this multidisciplinary intervention would decrease obesity in preschoolers as well as prevent obesity within Butler County. Specifically in our methods, we will address parent nutrition education, child education in gardening lessons, and child parent cooking sessions. Although our grant is specific to preschool age, this type of intervention is necessary to instill healthy lifestyle practices that are beneficial a long healthy life for parents and children. The specific strategies that would be utilized is educating parents, which would ultimately impact the children as they grow and develop. The parents would learn how to cook healthy meals for their children, which which decrease weight gain with the children eating a greater number of fruits and vegetables.

Project Narrative

Statement of Problems

Obesity rates among Butler County's youth is 14.6% and we believe that implementing a multidisciplinary program that involves not only the children but their parents as well, can help educate this population on the serious risks of obesity and lower the BMIs of the children participants (Ohio Department of Healthy 2015). Obesity in children has serious health risks such as hypertension, dyslipidemia, type 2 diabetes, and asthma. In addition, they are at greater risk for social and psychosocial problems, and decreased school performance (Foltz, 2012). Also children who are obese are more likely to be obese as adults, which result in even greater health risks (CDC, 2014), making it necessary to address obesity before it progresses.

Participants

How many participants do you expect to participate over what time period?

We expect to have 50 children and 50 parents for a total of 100 participants. We will have 100 participants in this community program over a six month period which will be from May-October.

Recruitment procedures (how will you recruit them to participate?)

To recruit children and parents, we plan to target parents through fliers that will be sent home with the child in private- preschools and elementary schools in the Talawanda School District specifically in Oxford. We also plan to go into the school during the parent teacher conference sessions and share with the parents the purpose of our program and the benefits that they and their child will receive from participating their time. Since these children are so young, it is necessary to target the parents instead of the children. We would like to target individuals who have a readiness to change and are interested in learning about nutrition education and have the time once a week to give up to attend the session. For a child to qualify for the program they need to fall equal to or greater than the 95% of weight on the child growth chart. The dietitians would set up our own free clinic where the program is hosted and weight, and measure each child to establish our baseline data. Also during the appointment when the child is weighted, the dietitian would also meet with the parent to address any concerns they have about their child's weight or lifestyle.

Action/ Activities Plan

	Process Objective or Impact Object the	Description of Activity or component	Person Assigned to task	Expected Result

	Activity is Linked to			
Nutrition lesson	To increase parental and preschooler nutritional knowledge, as well as placing an emphasis on positive interaction between parents and their preschoolers.	Program meets twice a month where both child and parent are present. 1. First meeting of the month- First 45 minutes parent has “mini lessons” about the food they will cook with their child. While the parent is learning the child will be gardening. Then the parent and child will cook together for an hour and 15 minutes 2. Second meeting of the month- Child does gardening for two hours while the parent has nutrition lesson that are broken out -questionnaire (post and pre) food log (at 3 month mark) to track progress	2 Registered dietitians	-Parents would gain knowledge on nutrition and how to prepare healthy meals and snacks for their children -Preschooler’s nutritional knowledge would also increase and by cooking with their parents, get excited about nutrition - Parents will be aware of the dangers and complications associated with childhood obesity and understand the urgency

Gym time	To increase the physical health and skill development of preschoolers through games and activities	We will partner with Miami University to allow an open gym facility for preschoolers and their families to participate in various games and activities for free. The open gym will be held on Saturdays from 11 AM to 1PM at the Miami University Recreational Center which will take place over a six month period. The two hours will put on by kinesiology students from Miami University to monitor the preschoolers safety, kids are learning, make sure the gym is equipped with equipment for the kids to play with, and make sure the preschoolers are	3 to 4 kinesiology students	- Children participate in physical activity. Through participating in physical activity, they will learn new skills and will encourage children to be more active. - decrease sedentary habits like screen time.

		having fun. At every open gym session,there first hour will be a planned activity or game for the the preschoolers and their families; these activities they will participate include soccer, kickball, replays, obstacle courses, parachute, or capture the flag. For the second hour, preschoolers and their families will have free range of safe, kid friendly equipment to use. This will include tag, hula-hoop, obstacle courses, run bases, soccer, and kickball.		
Garden	To increase general nutritional knowledge of preschoolers in Butler County	The garden component acts as a 2nd part of the Nutrition lesson, specific to the children of the study. The	2 Facilitators and a volunteer undergraduate student	-Build connections between healthy foods and healthy weight

	through nutritional education; measured by oral observations (asking open ended questions) and by observations of actions during program.	gardening component corresponds in date and time as the 2nd nutrition lesson of the month for 6 months. The children will be separated from their parents to work in a backyard garden with facilitators (2). During the garden time, facilitators will teach a brief seminar followed by a hands on activity. The seminars and the corresponding activities are listed below: (May) Lesson 1: Where does our food come from? Activity 1: (June) Lesson 2: Purpose of gardening Activity 2: (July) Lesson 3: Nutrients we		-Increase participation and bonding within students -Skill development in overall nutrition comprehension (food labels, myplate, dietary guidelines) -Get children to love the idea of being outdoors -An increase in personal awareness (setting personal goals → small step to a bigger change)

		need Activity 3: (August) Lesson 4: MyPlate Activity 4: (September) Lesson 5: Goal setting: dietary guidelines Activity 5: (October) Lesson 6:Making Healthy snacks; Harvest Time Activity 6:		

The rationale for the methods from the activities that the program will have are parenteral nutrition education classes, introduction of community garden at early education centers, and open gym facilities we will be able to target various components of the community and increase awareness.Through previous research it was found a multidisciplinary approach will produce the most valuable and effective outcomes for decreasing obesity rates (Bocca 2014). According to Bocca, a multidisciplinary approach for children 3-5 years old, including counseling sessions, physical activity and psychological sessions for the parents, was successful in short term weight loss in the children (Bocca 2014). Specifically we are targeting the community, home and early childhood facilities to accomplish and reach the goals and objectives that follow. The overall objective is to ensure that a minimum of 50 preschool children and their parents who are obese who complete our obesity education classes will decrease their BMI after 6 months.

Goal

Our goal is to reduce the obesity rate in preschool children in Butler County and increase parental knowledge for parents of preschool children in Butler County. To reach these goals we have created process, short term and long terms goals

Objectives

1. Our process objective is to provide 6 inservice training on nutrition education to 5 local dietitians in Butler County over a two week period in six sessions. The program planners will meet once a month.
2. The first short term impact objective is to increase general nutritional knowledge, by 50%, of preschoolers in Butler County through nutritional education from snack time and garden activities measured by a pre and post kid-friendly survey over a six month period.
3. The second short term objective is to increase the intake of fruit and vegetable consumption by two servings a day in preschool children of the Butler County region over a six month period by incorporating the importance of healthy eating in home, classroom, and community settings. This will be measured by monthly parental advised food logs.
4. Lastly our long term goal is to decrease the obesity rate in preschool children from 14.6% in Butler County to 12.6%, over a five year period based upon reported BMI. While keeping our goal in mind, our objectives will aid in reaching that goal and have a successful program.

Evaluation

To evaluate the result of our program we will use a variety of measurements throughout the program and the overall long term effects. Our research team will conduct an evaluation of the success of the program through the planning, training and preparation by the staff providing feedback on the program and activities that are completed during the lessons. The research team would meet the dietitians and facilitators to ensure there are no issues with the program, and if the lesson plans need to be changed for the parent or children, as we would change them accordingly. Both the dietitians and facilitators would need to ensure the program is being implement in the classroom environment for the parents and children. Additionally, we would have the adults complete a pre and post evaluation of knowledge gained through the program. Also we would have pre and post assessments of children's BMI. The facilitators would verbally evaluate the children's knowledge gained in the classroom setting. We would also ask the parents to complete a concluding survey of the success of the program, and if the adults found it was a beneficial program to participate with their children. The long term five year evaluation for the conclusion of the program would be measured with the decrease in prevalence of obesity in Butler County.

Dissemination of Research

The dissemination of research plays a highly critical role in the overall intervention program. It is vital that we effectively disperse our research to those who will directly be affected, such as, the participants and the Butler County community; along with those

who can indirectly apply our results into practice, such as, state health departments, health advocacy programs, and institutions. Program directors and coordinators are held responsible for collecting, analyzing, and dispersing the data found in the multidisciplinary intervention to the public. A three year annual follow up report will be published to describe, in depth, the progress of results with respect to the objectives and in the 4th year a final report will be compiled to communicate the degree of success from the intervention program based on evaluation and final findings. It is crucial that the seriousness of the childhood obesity epidemic can be expressed to all audiences; we will be hosting seminars directly with the Butler County Public School Districts and local communities along with a nationwide approach by organizing presentations and journal publications.

Timeframe

Garden Component- Community and Early Education

The garden component has been given the name of The Garden Club to promote a friendly and comfortable atmosphere for participants (head-start children). It will meet at the same place and time as the parents 2nd monthly "Learning Club" meeting to grant a total of 6 Garden Club meetings.

During their time in The Garden Club, children will be separated from their parents to work in the garden under the supervision of a facilitator and two volunteer Nutrition undergraduate students. As part of the intervention, the gardening component meets the ***community*** aspect of the multidisciplinary intervention because not only will participants develop acquaintances with one another through collaboration but by simply being exposed to the outdoors will promote healthier communities and allow children to play and learn at the same time. Furthermore, the Garden Club also plays a critical role in the ***early education*** aspect of the multidisciplinary intervention in that although participants are there are a lot of key take away points that will come from each meeting. The Garden Club aims to teach participants the connection between healthy foods and healthy weight, develop important skills in regards to general nutrition knowledge (food labels, Myplate, Dietary Guidelines), and increase personal awareness by setting personal goals with families. ***In order to measure the increase of general nutritional knowledge*****,** a pre and post kid-friendly survey will be given on the first meeting in May and the very last meeting in October. The pre and post surveys will be identical, that way there can be an effective method of measuring increased, decreased, or maintained nutritional knowledge. is to increase general nutritional knowledge of preschoolers in Butler County through nutritional education from garden activities and snack time will be measured by a pre and post kid-friendly survey. The pre-survey will be given on the first meeting in May and the same exact survey will be given out again in October to test post-gained knowledge.

A study done by Hamilton Air Force Base, North Bay Children's Center and University of California of San Francisco showed that their ""Garden of Eatin'" project encouraged families to adopt healthier eating practices and gain awareness of the importance of healthy eating. Through the group lessons, hands on interaction, real-life applications, and outdoor time, The Garden Club will teach beneficial and lifelong skills.

For the first 30 minutes of each meeting facilitators and volunteers will work to teach a one-lesson per meeting curriculum. After the first 30 minutes of each meeting children will leave the "teacher-student" setting and go outdoors where they will begin their gardening. *Below illustrates the six month gardening and lesson curriculum:*

May-Lesson 1: Where does our food come from?

Objectives:

1. To understand why food is important
2. To know the origin of food

Activity:

➔ Take children to the garden and expose to the different gardening tools such as hoses, watering cans, rake, small shovel, gloves

➔ Allow children to choose which plants they want and begin planting

June- Lesson 2: Purpose of Gardening

Objectives:

1. To understand the importance of gardening: why do we garden?
2. To understand the importance of fruit and vegetables in our lives

Activity:

➔ Go to the garden and look at their plants

➔ Water plants, etc.

July- Lesson 3: Nutrients we Need

Objectives:

1. To answer the questions: 1) What are nutrients and 2) Why does our body need them
2. Identify which foods are nutrient rich
3. Food Label Introduction

Activity

➔ Outdoor scavenger hunt in teams of (4?)

◆ Hide models of "junk" foods and nutrient-rich foods outdoors; Whichever team finds the most nutrient-rich foods wins

➔ We're halfway through the program: check the garden and discuss what's changed and what expectations

August-Lesson 4: MyPlate

Objectives:

1. To know the MyPlate model
2. To strive for more color on plate

Activity:

➔ Puzzle

➔ Check on garden and discuss in more detail the changes

➔ Water plants

September-Lesson 5: Dietary Guidelines/Setting Goals

Objectives:

1. To gain a sense of what the Dietary Guidelines are (specific to head-start age children)

2. Allow children to reflect and set personal goals

Activity:

➔ Ask participants what their personal goals are (what do they want to change or add in their life to make it better for them); record answers

➔ Go outdoors to check on plants for the last time before collection next month

➔ Discuss how different their plants look from the first meeting to now; encourage everyone to be proud of themselves for coming this far

(October) Lesson 6: Healthy Snacks; Harvest Time

Objectives:

1. To understand that snacks CAN be healthy
2. Demonstrate ways to make snacktime fun and healthy
3. How to utilize some of the plants they gardened into a healthy snack
4. Harvest plants to take home

Activities:

➔ Ants on a Log (celery with peanut butter and raisins on top)

➔ Split participants into groups of 4-5, and ask the question "What are examples of healthy snacks"

◆ The group to come up with the most on the list wins!

➔ Go to outdoors to check out the final product of the garden and individual plants; congratulate children on their hard work

➔ Harvest plants to take home

➔ Last Session: Everyone receives a certificate of being honorary members of "The Garden Club" → gives the children something to be proud of which can lead to an increased motivation to live a healthy lifestyle

<u>Open Gym Time (community)</u>

We will partner with Miami University to establish a free open gym time for the families from Butler County. This will generate a way for families to have fun and encourage children to participate in physical activity. Physical activity will help to improve physical health and help reduce obesity among preschoolers of Butler County. The open gym time will be given the name Play Time to be more appealing to the preschoolers. As part of the intervention, the playtime meets the community aspect of the multidisciplinary intervention because participants will interact with one another in a communal space.

A study done at twelve Head Start sites shows that preschoolers who participated in long term planned physical activity resulted in lower BMI, improved health, and overall physical health *(Fitzgibbon, 2006, p.1625)*. It is important to teach the preschoolers skills so they can continue to be physically activity at home.

At every Play Time, the first hour will be a planned activity and the second hour be open for preschoolers and parents to play together. Play Time will take place at the Miami University Recreational Center every Saturday from 11 a.m. to 1 p.m. over a sixth month period. Play Time will be mandatory for every participate at least once a month. Five Miami University kinesiology undergraduate students majoring in kinesiology will supervise it. They will meet before every Saturday to plan the activity or game and to make the gym provides the appropriate supplies and equipment. Furthermore, these students will supervise each session to ensure the preschoolers are participating, safe, interacting with one another, learning new skills and are having fun.

The first hour is the planned activity. Some of the activities preschoolers will participate in include soccer, tag, foam ball games, bean bag tossing, parachute, capture the flag, hot potato, catch and throw, scavenger hunt, and dancing to music. For the second hour, preschoolers and their families will have free range of safe, kid friendly equipment to use; such as jump-rope, building blocks, basketballs, and hula-hoops. It is important to choose activities that focus on being fun; if the preschoolers are having fun and enjoying their time, they are more likely to keep doing it through the week. Not only will the preschoolers be learning new skill and be active, it is a chance for parents to learn the importance of physical activity and how they can encourage it at home.

Nutrition Lessons (home)

There will be bi-monthly nutrition education meetings in correspondence with the garden club. They will be held at the same facility as the garden club to promote convenience for parents and their children. The meeting will be facilitated by two registered dieticians that have been previously trained and prepared to teach parents about basic nutrition and how to provide nutritious meals for their children. The first meeting of each month, the children will be invited and encouraged to join their parent in a cooking lesson. Together they will to cook a nutritious meal, and learn about healthy alternatives and cooking methods compared to what they might be used to. These cooking lessons will foster parent/child communication and get children excited about food and spending time with their parents.

The second meeting of the month will be directed only at the parents. The meetings will cover nutrition related topics in more depth. Since the parents are making most food choices for their children, it is important they have all the skills and knowledge to care for their child's nutritional needs. Topics will be created by registered dieticians after the the parents fill out a preliminary questionnaire. This questionnaire will serve as a baseline of the parent's knowledge, in which the RD's will build off of and hope to improve. Topics may include how to properly grocery

shop on a budget, the risks associated with obesity in children, how to properly prepare nutritious meals, how to incorporate more fruits and vegetables into their child's diet, techniques on how to encourage children to make healthier decisions, portion sizes, etc.

In the nutrition lesson meetings, the parents will be instructed to take daily food logs of what their children are consuming in day. These diaries will be analyzed at various times and at the 3 month mark, along with re-evaluation of the children's anthropometric data. At the end of the 6 months, the parent's will fill out another questionnaire to evaluate their progress related to nutrition knowledge.

Both these bi-monthly meetings will foster an increase in parental and child nutrition knowledge as well as a stronger relationship between parent and child. At the end of the 6 month, parents should also be fully aware of the risk associated with childhood obesity, and be taking action and measures to ensure their child's health.

Activity	April	May	June	July	August	Septermber	October	November	December
Start- up & recrutiment for curriculum-only group									
Baseline data collection & feedback from parents week 1									
Open Gym Time (each Saturday)									
Begin curriculum for parents Lesson 1									
Begin curriculum for children Lesson 1: Where does our food come from?									
Parent Child Cooking Class									
Open Gym Time (each Saturday)									
Begin curriculum for parents Lesson 2									
Begin curriculum for curriculum for children Lesson 2: Purpose of Gardening									
Parent Child Cooking Class									
Open Gym Time (each Saturday)									
Begin curriculum for parents Lesson 3									
Begin curriculum for children Lesson 3: Nutrients we Need									
Parent Child Cooking Class									
Open Gym Time (each Saturday)									
Begin curriculum for parents Lesson 4									
Begin curriculum for children Lesson 4: MyPlate									
Parent Child Cooking Class									
Open Gym Time (each Saturday)									
Begin curriculum for parents Lesson 5									
Begin curriculum for children Lesson 5: Dietary Guidelines/ Setting Goals									
Parent Child Cooking Class									
Open Gym Time (each Saturday)									
Begin curriculum for parents Lesson 6									
Begin curriculum for children Lesson 6: Healthy Snacks; Harvest Time									
Parent Child Cooking Class									
Post Assessment data collection & feedback from parents post program									
Project wrap-up, & findings									

Situation/ Needs Assessment	Inputs/ resources	Activities Planned	Outcome- Inputs	Short Medium Long
Our community shows statistics for childhood obesity that are much greater than that of the 8.5% national average. In Butler County, the rate of obesity in children 2-5 years old was 14.6% compared to 12.4% for the state of Ohio (Ohio Department of Health, 2015). Obesity is a problem in children because it increases their risk for adverse health conditions including hypertension, dyslipidemia, type 2 diabetes, asthma and social/ psychosocial problems and a decreased school performance (Foltz, 2012, p. 391). The likeliness that obese children will be obese adults is far greater than those of healthy weight. (CDC, 2014).	Teaching Resources used: Cooking curriculum and gardening lessons for preschoolers and adults presented by dietitians. Also addition one mandatory physical activity session is required to increase activity for preschool children. Equipment for gym time is needed to be purchased. For gardening need plants, supplies along with arts and crafts activities. For snack session during gardening need food for the snacks. Lastly for cooking class need cooking equipment and food for the meals to cover 100 people. Current & Potential Partners & Locations: Local dietitians, facilitators, Miami University kinesiology student's/ volunteer gym assistants. Also church facility for cooking and garden classes.	"Playtime" (gym time): We will partner with Miami University to allow an open gym facility for preschoolers and their families to participate in various games and activities for free. The open gym will be held on Saturdays from 11 AM to 1PM at the Miami University Recreational Center. The two hours will put on by kinesiology students from Miami University to monitor the preschooler's safety, kids are learning, make sure the gym is equipped with equipment for the kids to play with, and make sure the preschoolers are having fun. At every open gym session, the first hour will be a planned activity or game for the the preschoolers and their families and the second hour will be free time. **"Gardening Club":** The gardening club is a learning component directed towards the preschoolers. Facilitators will teach the participants about gardening and healthy eating, as well as have a snack and do crafts. The facilitators will be in charge	Playtime: Available every Saturday from 11-1pm, but program participants are only required to attend once a month. Two university kinesiology majors will facilitate play time and if all participants attend there will be 50 preschoolers and 50 parents present. There will be a total of 24 open gyms over a 6 month period. Gardening club: 2 facilitators will lead the gardening club that will meet once a month for two hours, total of six sessions. 50 preschoolers will be present and each will get a snack (50 snacks per session), complete gardening lesson, and craft. Cooking classes: 50 parents and their 50 preschooler participants will meet once a month for a total of 6 cooking lessons. Two dieticians will lead the cooking class, food preparation, and meal.	Overall Goal: Our goal is to reduce the obesity rate in preschool children in Butler County and increase parental knowledge for parents of preschool children in Butler County. To reach thes goals we have created process, short term and long terms goals. Short Term: 1. In our process objective 50 adults will attend six sessions of nutrition educatio taught by local dietitians in Butler Count over a two week period. The program planners will meet once a month. 2. The objective for preschoolers in Butler County is to increase general nutritional knowledge by 50% measured by a pre and post kid-friendly survey through nutritional education from snack time and garden activities over a six month period. 3. The second objective for preschooler in Butler County is to increase fruit and vegetable consumption by two servings over a six month period by incorporating the importance of healthy eating in home, classroom, and community settings. This will be measured by monthly parental advised food logs. Long Term: Our objective in preschool children from Butler County is to decrease the obesity rate within the county from 14.6% to 12.6%, a total of 2% decrease over a five year period based upon reported BMI. While keepin our goal in mind, our objectives will aid i reaching that goal and have a successfu program.

Educational Topics: Grocery shop on a budget, risk associated with obesity, how to properly prepare nutritious meals, how to incorporate more fruits and vegetables, techniques to encourage children to make healthier decisions, portion size. Providing Training: Provide training to dietitians to focus on teaching approaches to adult and children and the overall goal of the program. Also training to facilitators on helping them engage preschool children during gardening.	**"Cooking classes":** This activity is directed towards the parents and their preschoolers. During this time, dieticians will lead a cooking lesson that will result in a meal for the participants. **"Nutrition Lessons":** This activity is directed towards the parents and led while the preschool participants are at gardening club. It will be lead by dieticians, and parents will learn about various nutrition topics and how they can provide healthier meals and lifestyles for their children. It will be mandatory for the parents to keep a daily food log for their preschooler and during the nutrition lesson these diaries will be analyzed. Also, a pre- and post- evaluation survey will measure the parents increase in nutritional knowledge.	Nutrition education: 50 parents will attend a monthly 2-hour nutrition lessons lead by two dieticians, for a total of 6 lessons. Each parent gets a food diary journal: 50 journals. And each parent will get 1 educational material per session, for a total of 50 handouts *attendance to all activities is mandatory and conducted over a 6 moth period

Personnel

Our program will utilize multiple personnel, including four project coordinators, two dieticians, two garden club facilitators, one gym time facilitator and Miami University student volunteers. The project coordinators will be responsible for overseeing the program from training other personnel, ensuring facility participation and funding, recruitment of participants, evaluations, and necessary modifications need to be made along the way. The dieticians will be responsible for undergoing training stated in the objectives, preparing and executing nutrition lessons and cooking classes for participants, analyzing anthropometric data for evaluation, and for answering any questions participants may have. The garden club facilitators are responsible for planning and executing the planting and care of the garden, educating the participants on gardening and various nutrition related information, providing snack time, and facilitating the activities. The gym time facilitators will be responsible for overseeing the open gym time, facilitating games and participation from participation and their families, and proper clean up of equipment after gym time. The Miami University student volunteers will be used to help facilitate gym time, run activities/games, and clean up.

Budget and Budget Justification

Category	Description	Subtotal
Wages/ benefits	Part-time position for 2 dietitians (24 hours x $50 per hour) and 2 facilitators (12 hours x $35 per hour) and 1 facilitator for gym time (48 hours of gym time x $25 per hour)	$1,200 per Dietician $420 per facilitator, $1,200 for gym facilitator Total= $4,440
	Project coordinator for 4 positions of lump sum ($500)	$2,000
Materials and supplies	Printing posters used for advertising	$100
	Gym Equipment	$500
	Plants, gardening tools and supplies	$1,000
	Snacks for “The Garden Club” 6 sessions x 50 kids x $5 per person	$1,500
Travel	Project coordinator travel 100 miles x 0.75 per mile (2 paid positions)	$1,800
Education Materials	Education handouts and worksheets for nutrition ($0.50 per handout)	$600
	Education handouts and worksheets for gardening ($0.50 per handout)	$150
	Journal/ food log diary ($3 per journal x 50 parents)	$150
	Miscellaneous school supplies for children (stickers, markers, paint)	$1,000

Program and Food	Food for “The Learning Club” cooking: 6 sessions x 100 people x $8 per person	$4,800
	Cooking supplies including knives, measuring spoons, bowls, cutting board ($200 per couple x 25 pairs)	$4,800
Assessment and Screening	Scales, measuring tape, and calculators	$100
Miscellaneous	Team meetings	$200
	Contract with other professionals	$500
	TOTAL=	$23,640

A. Salaries and Wages (Total = $6,440)

a. Dieticians (2): 24 hours of lesson time x $50 per hour x 2 dietician = $2400 per dietitian. Responsibilities include attending two week training, conducting anthropometric measurements on the the preschool participants, recording and analysing the data, planning nutrition lessons and recipes for Learning Club, arriving early to set up and prepare for lesson, printing any materials necessary, teaching the lessons and answering questions, analyzing food log and making suggestions, and facilitating the overall nutrition education of parents and preschoolers

b. Garden Facilitators (2): 12 hours of garden time x $35 per hour x 2 facilitators = $840 per facilitator. Responsible planting the garden, supervising the children, preparing and supplying the snacks, having the knowledge plants, planning out lessons, proving the necessary supplies needed for planting, and facilitating the overall nutrition education to preschoolers and parents.

c. Gym Time Facilitator (1): 48 hours of gym time x $25 per hour = $1200. Responsible for facilitating gym time every Saturday. This includes planning games and activities to fill the full 2 hours. Should make sure to get every child up, moving, and involved in the games or activities.

d. Project Coordinator (4): $500 (lump sum) x 4 coordinators = $2,000. Responsible for creating and planning program, creating and delegating the budget,

hiring dieticians and facilitators, and monitoring/evaluating the program's progress and reacting accordingly.

B. Materials and Supplies (Total = $3,100)

a. Printing & Copying: ($.50/sheet)

i. Posters for Advertisements: $100, required to get the word out and attract possible participants

b. Gym Equipment -- Balls, hula-hoops, jump ropes, etc.: $500 total, gym equipment needed for open gym time and for facilitators to use to play games and activities with preschool participants, kid-friendly equipment needed for the preschool age group such as balls, hula-hoops and jump ropes.

c. Plants, gardening tools and supplies: $1,000, need to plan, plant, and take care of garden. Supplies would include multiple shovels, gloves, plants, watering cans and hoes for participants to use.

d. Snacks for "Garden Club": 6 sessions x 50 kids x $5 per person = $1,500, healthy snacks will be provided at the Gardening Club to facilitate a kid friendly nutrition lesson

C. Travel (Total = $1,800)

a. Dietitians are paid to travel from Cincinnati to Oxford which is about 100 miles round trip. There are a surplus of dietitians in the Cincinnati area who may be in need of work and willing to do a little bit of travel twice a month to attend that nutrition education sessions.

b. Dietitians traveling from Cincinnati to Oxford, Ohio: 100 miles round trip x $0.75/mile x 12 trips/sessions x 2 dieticians = $1,800.

D. Educational Material (Total = $1,900)

a. We will provide nutrition education worksheets and gardening worksheets to the parents and children for material they can read at home. We also are requesting to have the parents record what their child is eating in a journal, so the dietitians can review the child's 24-hour recall. Lastly we would need a miscellaneous school supplies as incentives for the children and other art supplies material that children may need for art projects when gardening.

b. Education handouts and worksheets for Nutrition Sessions: 12 sessions x 100 people x $.50 per sheet = $600

c. Education handouts and worksheets for garden lesson: 6 sessions x $.50 x 50 children = $150

d. Journal/ food log diary: $3 per journal x 50 parents = $150

e. Miscellaneous school supplies for children (stickers, markers, paint): $1000.

E. Program and Food (Total =$9,600)

a. “The Learning Component,” concentrates on how to properly cook foods to be healthy and nutritious for families. The costs for the foods during the cooking aspect of the “Learning Club” can be broken down as such:

i. 6 sessions x 100 people x 8$ per person = $4,800

b. The cooking supplies covers various things such as knives, measuring supplies, cutting boards, and more which can be broken down as such:

i. $200 per couple x 25 couples = $4,800

F. Assessment and Screening (Total = $100)

a. Scales, measuring tape, and calculators: screening equipment needed by dieticians to take anthropometric data such as weight and height, this equipment will be used multiple times throughout the program to monitor the pre schoolers

i. One scale per dietitian: $25.00 x 2 = $50

ii. One measuring tape per dietitian: $6.00 x 2= $12

iii. One calculator per dietitian: $13.75 x 2 = $27.50

G. Miscellaneous ($700)

a. Team meetings: $200 for team meeting materials such as lunch and paper handouts

b. Contract with other professionals: $500 put aside for possible contracts with other professionals (i.e. physicians) if their assistance were to be required (i.e. if a preschooler’s condition worsens or is injured during program time)

References

Agrawal, T., Hoffman, J. A., Ahl, M., Bhaumik, U., Healey, C., Carter, S., & ... Castaneda-Sceppa, C. (2012). Collaborating for impact: a multilevel early childhood obesity prevention initiative. *Family & Community Health*, *35*(3), 192-202.

Anderson, S. E., & Whitaker, R. C. (2010). Household routines and obesity in US preschool-aged children. *Pediatrics*, *125*(3), 420-428.

Baughcum, A., Gramling, K., & Eneli, I. (2015) Severely obese preschoolers in a Tertiary Care Obesity Program: Characteristics and Management. *Clinical Pediatrics.* 54(4), 346-352. doi: 10.1177/0009922814555975

Bocca, G., Corpeleijn, E., van den Heuvel, E. R., Stolk, R. P., & Sauer, P. J. (2014). Three-year follow-up of 3-year-old to 5-year-old children after participation in a multidisciplinary or a usual-care obesity treatment program. *Clinical Nutrition*, *33*(6), 1095-1100. doi:10.1016/j.clnu.2013.12.002

Boles, R., Scharf, C., & Stark, L. (2010). Developing a Treatment Program for Obesity in Preschool-age Children: Preliminary Data. *Children's Health Care*, *39*(1), 34-58. doi:10.1080/02739610903455137

Braungart-Rieker, J. M., Moore, E. S., Planalp, E. M., & Lefever, J. B. (2014). Psychosocial pathways to childhood obesity: A pilot study involving a high risk preschool sample. *Eating Behaviors*, *15*(4), 528-531. doi:10.1016/j.eatbeh.2014.07.004

Brotman, L. M., Dawson-McClure, S., Huang, K. Y., Theise, R., Kamboukos, D., Wang, J., ... & Ogedegbe, G. (2012). Early childhood family intervention and long-term obesity prevention among high-risk minority youth. *Pediatrics*, *129*(3), e621-e628.

Carroll, J. D., Dollahite, J. S., Sobal, J., Olson, C. M., Demment, M. M., Stiles, S. B., & Devine, C. M. (2011). Overcoming barriers to vegetable consumption by preschool children: a child care center buying club [electronic resource]. *Journal Of Hunger & Environmental Nutrition*, *6*(2), 153-165.

CFHS & RHWP Health Status Profile: Butler County, Ohio. (2014, February 1). Retrieved September 29, 2015.

Chaufan, C., Jarmin, Y., & Sigal, B. (2015). Advancing Family Health Through the Garden of Eatin': On-site food gardens in early childhood education. *American Journal Of Public Health*, *105*(4), 625-628. doi:102105/AJPH.2014.302422

Center for Disease Control: Childhood obesity facts. (2015, June 19). Retrieved September 29, 2015.

DiSantis, K. I., Davey, A., Fisher, J. O., & Collins, B. N. (2011). Do infants fed directly from the breast have improved appetite regulation and slower growth during early childhood compared with infants fed from a bottle? [electronic resource]. *International Journal Of Behavioral Nutrition And Physical Activity*, *8*(1), 483.

Fitzgibbon, M. L., Stolley, M. R., Schiffer, L., Horn, L., KauferChristoffel, K., & Dyer, A. (2006). Hip- Hop to Health Jr. for Latino Preschool Children. *Obesity*,*14*(9), 1616-1625.

Foltz, J. L., May, A. L., Belay, B., Nihiser, A. J., Dooyema, C. A., & Blanck, H. M. (2012). Population-level intervention strategies and examples for obesity prevention in children. *Annual Review Of Nutrition*, *32*391-415. doi:10.1146/annurev-nutr-071811-150646

Herman, A. N., Fisher, J. O., Whitaker, R. C., Malhotra, K., & Wright, G. (2012). A qualitative study of the aspirations and challenges of low-income mothers in feeding their preschool-aged children [electronic resource]. *International Journal Of Behavioral Nutrition And Physical Activity*, *9*(1), 672.

Looney, S. M., & Raynor, H. A. (2011). Impact of portion size and energy density on snack intake in preschool-aged children [electronic resource]. *Journal Of The American Dietetic Association*, *111*(3), 414-418.

Malhotra, K., Herman, A. N., Wright, G., Bruton, Y., Fisher, J. O., & Whitaker, R. C. (2013). Perceived benefits and challenges for low-income mothers of having family meals with preschool-aged children: childhood memories matter. *Journal Of The Academy Of Nutrition & Dietetics*, *113*(11), 1484-1493. doi:10.1016/j.jand.2013.07.028

Wojcicki, J. M., & Heyman, M. B. (2012). Reducing childhood obesity by eliminating 100% fruit juice. *American Journal Of Public Health*, *102*(9), 1630-1633. doi:10.2105/ AJPH. 2012.300719