PROJECT OLA:
Promoting Community Health Through the Integration of Movement and Education

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Abstract

There is a need for new and innovative public health programs that increase positive health behavior outcomes. This paper examines why a new community health model is needed, why children and communities need to increase physical activity, and the rationale behind a mother targeted intervention program. The OLA model offers a holistic approach to community health promotion programs through the integration of physical activity with health education in order to increase positive health behavior outcomes. A culturally competent model that includes and is influenced by participatory planning, adult-learning theory concepts, health coaching, motivational interviewing, self-determination theory, and horticultural therapy, yet also has a built-in component of self-care for the human service professional. A small pilot program was implemented and the results generated relatively positive outcomes. The OLA model, intervention, and curriculum is presented as a framework tight enough to be replicated and yet flexible enough to be tailor-made for the unique, diverse nature of the varied groups within socioeconomically low communities.

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"Soft overcomes hard. Who you are means more to your child than what you teach."
-excerpt from Tao of Motherhood (McClure, 1997, p.77)

Globally, it seems that modern society has influenced humankind to become disconnected from who we are and our collective health. This modern society has fostered a lack of awareness for the ways in which we are all interconnected, not only to each other, but also to the Earth's environment, all living things, including the food that nourishes us. Disease, or dis-ease, is just that, a lack of health most often brought about by a lack of awareness and a lack of connection. This can be most easily seen in the abrupt rise, current statistics, and future projections of preventable chronic diseases. However, we have now entered a post-modern society, and the post-modern paradigm shift is awakening an enlivened consciousness towards health and wellness. We are in dire need of truly holistic wellness promotion programs in order to support this shift of consciousness.

It only takes one look at the current global statistics on preventable chronic diseases to understand that current health prevention programs are antiquated and based upon the traditional approach to education: "do as I say, not as I do". Most current public health approaches are based on intellect and the power of the mind to effect change. Anyone who has ever battled to quit smoking, had issues with under or over eating, or dealt with unhealthy addiction, knows that change is more difficult than simply "knowing" what we should do. These present approaches to health prevention are not working because there is no physical, embodied, *felt* sense of "health". Laughter, joy, vitality, energy, clarity, and a decrease in feelings of stress needs to be experienced as an attainable level of health for which to strive. This *felt* sense of health is an incredibly important feeling of deep connection that has the power to create embodied, sustainable motivation.

This felt sense of health can be experienced in many ways, but it is ultimately lacking in accessibility. As we add in the diverse nature of communities most at risk with significant socioeconomic barriers to information and services, we begin to see more deeply, and almost inarguably, that we are in need of new public health approaches. Therefore, holistic, culturally competent, cost-effective, evidence-based, and sustainable prevention programs are primary requirements of the future paradigm of community health prevention and education programs.

One current trend worth noting is the growing popularity of group exercise classes. However, access to these group classes is most often limited to those who can afford them. While physical activity offers many health benefits, collective group movement classes increase motivation and sustainability for its participants. It is an enjoyable way to feel healthy while connecting with others. Affordable group exercise opportunities are not reflected in the under served low-income communities who have the highest rates of preventable diseases such as obesity, diabetes, and cardiovascular heart disease. This dis-ease and lack of health is largely due to disconnect, antiquated community health prevention approaches, and lack of access to sustainable exercise opportunities.

This paper proposes the integration of culturally appropriate physical activity (PA) or exercise with health education to awaken somatic awareness while also increasing positive health behavior outcomes in women and children of low socioeconomic status. The resulting program model, OLA, offers an effective, flexible platform for health promotion in community settings. An evidence-based, culturally competent community health prevention program specifically tailored for socioeconomically disadvantaged maternal women and children that includes the integration of group movement and PA with health education will increase short-term and long-term positive health behavior outcomes. In this paper, I present the OLA model for working with low-income women of maternal age and children as a new approach to health prevention based upon several key

components that makes it a unique, holistic approach framed around a more organic empowerment of disadvantaged communities.

Personal Anecdote – Why This Issue is Personally Relevant

"And yet in our world everybody thinks of changing humanity,
but nobody thinks of changing himself."
-Leo Tolstoy (1900, p.29)

This need for a new approach to community health prevention programs, especially for women and children, has a multi-layered personal relevance to me. My own professional experiences contribute to my deep desire to explore new approaches and health interventions mostly centered on the empowerment of women to increase health and vitality such as the OLA model. The nature of my relevant professional experience drives my desire and belief to be based upon an informed and credible expression of my own wisdom and judgment. At this point in my life experience and career, I truly believe that women of reproductive age, in particular mothers, are at the core of positive health changes in low-income communities, like the eye of a storm, calmly and quietly connected to all others community members who are swirling around her. That central energy (woman) can catapult the energy of the storm (children, men, elders) with the subtlest touch propelling it into a more massive or much smaller tornado. Women during their reproductive years most often are the foundation of health as primary caretakers for the children. This foundation is how her health intimately affects and ultimately sets the stage for the health of her unborn and born children. How she cares for her own mental, physical, spiritual, and emotional health plays a huge role upon her whole family. Yet although the role of women in modern society has increased exponentially, there is little cultural regard for the importance of caring for a woman's health and how connected it is to the health of her children and other family members.

Professionally, I have worked with women and children in socioeconomically low communities for fifteen plus years, and have seen how limited the current approaches to health

education are. Countless hours were spent talking about health behavior changes, coaching, and teaching. However, so many women are disconnected from any true, felt sense of "health" and therefore disconnected from their inner orientation towards striving for healthy changes. After a while, it began to feel like trying to describe the color green to a person who had been blind his entire life. I observed that intellectually many people could understand the need for change, yet without actually *feeling* healthier, there were few sustained changes.

While working with pregnant women, I noticed that women can often be motivated to make important positive health behavior changes for their children, but even that curve is slow. Depending on the prescribed health behavior change, it could take months or even years for there to be some sort of motivation of will to push for the change. And often, the positive health behavior changes made during pregnancy would disappear after the child was born. For example, women who were able to quit smoking during pregnancy would often begin smoking again following the birth of their children in spite of the knowledge of second-hand smoke exposure risks. This signaled to me a disconnect from that inner motivation and innate orientation towards living a life of health and vitality. This also was a signal the change stemmed from the mind and intellect. However, once a person got an embodied sense of *feeling* good and connected to self and others, it seemed to awaken and enliven that desire to continue to strive towards those positive healthy behaviors.

Inter-personally, as a single mother, my own journey as a woman and a mother has made a profound impact upon my health and myself. I have encountered the barriers and opportunities to participate in group exercise. I have been both a participant and a teacher for group exercise classes for a wide variety of diverse populations. I have felt personally and witnessed professionally how women open up and connect more deeply to their own sense of self and to others in the group after a movement class. Additionally, I have noticed that individuals seem more receptive for knowledge

and can naturally integrate the health information with more ease and less resistance. I have also experienced the joy of participating in a movement class with my child. I have gone through seasons with total focus on my child's health and complete disconnect from my own and experienced the unhealthy results. Conversely, I have also gone through times with more balance and a sense of priority upon my health and self-care and felt the difference in ease for motivating healthy lifestyle choices for both my child and myself. I have witnessed and experienced the profound impact of applicable, hands on learning. Active, experiential learning seems to take root more deeply than merely cerebral, intellectual learning. Therefore, the knowledge, drive, and passion behind my belief in an approach like OLA stems from my hard work and experience professionally, and personally, which are at the core of this approach.

The significance of the name for this project and model, OLA, has several layers. First, the word "ola" is a Spanish word for "wave." It also sounds like and is pronounced the same for the common Spanish greeting "hola" which means "hello". Personally, my passion and desire for this work and the creation of the model goes back to when I was living in Central America and became fluent in the Spanish language while also rediscovering my love of the ocean and waves. Secondly, the word "OLA" is an acronym for my daughter's name Oceana, my name Lorene, and my mother's name Ann. I love that this represents the three generations so intricately important to my health as well as represents the interconnectedness of health, in particular for women. Lastly, "ola" or "hola" spelled backwards begins the word "aloha" which has an enormous significance, culturally, globally, and linguistically. One literal meaning of "aloha" is about consciously manifesting joyous living in the present. All three layers of these meanings represent the truth of my purpose and deep intention behind the creation and implementation of this project.

In the following sections of this paper I will detail how to improve upon and why we need a new community health model. I will begin by specifically addressing why children and communities

of low socioeconomic status need more physical activity. Next, I will suggest the reasoning behind support for a shift in the approach from child-targeted programs to a woman-targeted program. I will describe in detail the theories and perspectives that have influenced my rationale, as well as discuss some of the existing research and other similar models. Then I will explain the basis behind the key ingredient of this new model, the integration of group physical activity with health education. I will then explain the platform upon which the OLA model stands that I propose for the holistic approach to community health education. This holistically based approach to community health promotion discussion will include the philosophical underpinnings of the model as well as how the model addresses each holistic aspect. Finally, I will describe the framework for the model itself, and then conclude with some suggestions for the future of community health promotion programs and how to best support forward movement in the field of public health.

Why We Need a New Model

Before describing the holistic community health promotion program, OLA, proposed in this paper, it is important to examine the current models and why these approaches are inadequate. In this culture of technology, Internet, television, radio, and marketing, there is no lack of accessible information. However, individuals are being regularly inundated with information overload, and even those who "know" are most often still choosing to not "apply." Most of the current health education approaches for culturally diverse, underserved, at-risk populations are no different. They are based on repetitive distribution of information and a lack of tangible action. Pamphlets, billboards, signs on buses, commercials, and posters are everywhere attempting to promote healthy choices. However, despite all the information and "talk", the trends continue to rise on preventable diseases demonstrating that few people are actually implementing healthy choices (CDC, 2012, para 2 & 3).

One such example is the federally funded state program started in 1972, Women, Infants, & Children (WIC). WIC is the primary nutrition and breastfeeding education program for low-income women and children in the U.S. In addition to nutrition education, breastfeeding classes, and access to lactation consultants, participation in the educational program offers free healthy food—healthy as defined by the U.S. Food and Drug Administration (FDA)—as an incentive reward. In spite of this health promotion program for maternal women and children, the rates of preventable chronic dis-ease have continued to increase. In the realm of public health, increased body weight has become a concern as obese children are at an increased risk for diabetes, heart disease, and hypertension as they often become obese adults (CDC, 2009, p.4). This suggests that maternal women are receiving the mainstream health information, but are not implementing the positive health behavior changes in ways that create sustainable changes for themselves or their children.

Experiential Learning & Adult Learning Theory

This section summarizes how some key components of adult learning theory are not included in most current community health promotion models and why it should be. The theory is based upon andragogy and its principles of the way in which adults learn. The learning approaches are problem-based and collaborative (Lieb, 1991). It addresses both the motivations and barriers to learning. Positive reinforcement, social relationships, social welfare, and escape are some of the aspects mentioned for educators to be effective at motivating learning (Lieb, 1991). Adult learning theory, which most innovative education approaches are based upon, reinforces the importance that for true learning to be digested and integrated, the learning experience itself must be more experiential. The old, didactic approach of being talked at through lecture only has proven to work for only a small percentage of people with regards to applying the knowledge learned. It also considers the different kinds of learners and types of intelligence. Basically, the development of this

theory suggests that in order for information to be absorbed and integrated, the educational method of delivery should really be tailored to reach each specific group of learners (Lieb, 1991).

A new community health model that applies this theory and is action-oriented (instead of talk-oriented) based upon experiential learning is needed. A model is needed that replaces the current "talk the walk" approach with a culturally competent "walk the talk" approach that is more easily and widely implemented in specialized formats for the diverse needs of learners in communities of low socioeconomic status. Experience is the ultimate cross-cultural way to integrate knowledge into action, promote sustainable changes, and even reduce language barriers. In order to effectively educate, the principles of this theory can be applied to all ages of learners in all methods of educational delivery.

Mind-Body Connection "Bottom-Up Approach"

The mind-body connection is another key component of a model for change, a component that is most often not included in current community health education approaches. Such a simple shift in perspective could have a profound effect upon influencing positive health behavior changes in communities of low socioeconomic status. There is a gap in the field of community health education between the mind and the body, metaphorically and literally. Bestowing knowledge and talking about how to become healthier is only a part of empowering individuals to truly change. Individuals need to have "felt" experiences of health that can only come from the body.

The inclusion of the mind-body connection is based upon the science of somatic psychology that considers the wisdom in the body and that healing is possible through movement (Raglin, 1990). The body feels good with healthy movement that in turn relaxes the mind and induces pleasure. These small experiences create openings for individuals to feel motivated and orient their minds, bodies, and spirits towards making healthy changes (Smith, 2013). Essentially, physical activity and movement affords individuals with an opportunity to connect to the inner desire and

responsibility for their own health. Talking about health is so different than feeling healthy. External motivation towards change, which most current health intervention programs are based upon, leaves little to no space for empowering individuals' own internal wisdom and inner motivation. This wisdom that is only partly in the mind and mostly in the body has the ability to heal.

An experiential approach to learning that engages individuals and groups from a bodily "learning" while accessing individual's own internal motivation is a more effective new approach to community health education. Most widespread public health education programs being implemented currently tend to be based upon antiquated approaches to teaching and utilize methods to motivate individuals externally. Incorporating both embodied learning and internal motivation into one comprehensive community health program model could have a profound impact upon influencing the short and long-term positive health behavior outcomes. In the proceeding sections of this paper, I will further address how these considerations influence the philosophical underpinnings of the OLA model design.

Why Low-Income Children & Communities Need to Increase Physical Activity

In order to create a comprehensive community health promotion and intervention program, one must look at the current status of health in the United States and understand what has become defined as an "epidemic" of preventable diseases. This project presents new ways to measure health and approach health education within the umbrella of health prevention and chronic disease based on the public health perspective of the "obesity epidemic", although this project is by no means married to such a perspective (see Appendix B: Definitions). Weight, body size, and BMI are not necessarily indicators of health from a holistic perspective, but in order to promote the core purpose of this model within the mainstream concerns of public health agencies this project considers the obesity issue as an entrance point. With the turn of this century, and more recently within this

decade, the field of public health has begun to place a higher priority on health prevention. In particular, childhood obesity prevention programs have become a central focus for some recent health campaigns such as "Let's Move" and the Surgeon General's healthy nation initiative (The White House, 2010, para 1-4; Office of Surgeon General, 2010, p. 12). The primary consideration is that childhood obesity sets the stage for many of the most preventable highest risk diseases such as obesity, diabetes, and cardiovascular disease, in particular for low-income populations with the greatest health disparities (CDC, 2013).

Level of physical activity (PA) is generally acknowledged to be a key determinant of children's health:

> Lack of PA is a key contributor to the epidemic of childhood obesity and a well-described risk factor for cardiovascular disease (Anderson et al., 2006). In addition to adverse metabolic effects, reduced childhood PA can negatively affect psychosocial factors such as self-esteem and is associated with declining motor skills, which may, in turn, contribute further to inactivity. Effective interventions that address childhood PA are therefore urgently needed. Given the limited effectiveness of most interventions to date, new approaches are needed. (DeBock et al., 2010, para 1)

There has been a trend in the last two decades where PA and exercise in children have significantly decreased worldwide (Wilkinson, 2008).

Mounting evidence shows that both children and adults need to increase physical activity. The Centers for Disease Control and Prevention (CDC) (2013) has reported alarming data on the current state of overweight, obesity, and sedentary lifestyles. Obesity is at an all-time worldwide high rate, affecting 17% of all children and adolescents in the United States (CDC, 2013). Childhood obesity is a key contributing and determining risk factor to three of the top preventable chronic diseases in the United States: obesity, diabetes, and cardiovascular disease. Pre-school age

and early childhood is perceived as the most influential time for a child as it sets the stage for continuing habits, and is primarily influenced by parents and/or primary caregivers. However, data collected from the *Pediatric Nutrition Surveillance System* (PedNSS) shows that obesity is an increasingly higher problem for low-income children (CDC, 2013). Additional information and data illustrates that "there are significant racial and ethnic disparities in U.S. children" for the prevalence of obesity (CDC, 2013; See Appendix D). All this suggests the need for new and innovative approaches to community health promotion programs that consider the nuances and diversity of low socioeconomic community groups.

In light of increasing rates of childhood obesity, it becomes clear why PA promotion has occupied a more primary role for public health models. Campaigns such as Michelle Obama's *Let's Move* have began to address and initiate momentum towards encouraging communities to move more (The White House, 2010, para 1-4). In 2011, the CDC published *Strategies to Prevent Obesity and Other Chronic Diseases: The CDC Guide to Strategies to Increase Physical Activity in the Community*. These guidelines outlined ten strategies including "enhanced school-based physical education" and "social support interventions in community settings" (CDC, 2011b, pp. 17, 21). The founder and creator of the popular Zumba Fitness movement, Beto Perez, based the entire philosophy of Zumba upon cultivating a fun atmosphere to engage in physical activity. Over the last decade, the workouts consisting of party-like classes, has experienced steady growth in worldwide popularity (Zumba Fitness LLC., 2013). Alberto Perlman, Perez's business partner, explained the following about Zumba's approach, "Our message is ditch the workout, join the party. This doesn't feel like a workout. A workout is the result of what we're doing, but the objective is to have fun" (Pannino, 2012, p.4). Surgeon General Regina M. Benjamin started an initiative in 2010 titled *The Surgeon General's Vision for a Healthy and Fit Nation*. In support of this initiative, the Surgeon General issued a public service announcement in 2012 encouraging individuals to "put the joy back into health" and

find a physical activity that increases one's own sense of happiness (Office of Surgeon General, 2010, p. 12). Dr. Benjamin elaborated further to lessen the importance of BMI and increase the value of feeling healthy and motivated:

> To stop the obesity epidemic in this country, we must remember that Americans will be more likely to change their behavior if they have a meaningful reward—something more than just reaching a certain weight or BMI measurement. The real reward has to be something that people can feel and enjoy and celebrate. That reward is invigorating, energizing, joyous health. It is a level of health that allows people to embrace each day and live their lives to the fullest—without disease, disability, or lost productivity. (p. 12)

Physical activity and the prevention of obesity has become a top U.S. health priority. In this paper, obesity prevention and wellness promotion are terms that can and will be used interchangeably for the purpose of including both the current community health vocabulary as well as the new paradigm of holistic language being applied to public health intervention programs. The OLA Model can be translated into the current language of healthcare and health promotion as an obesity prevention program. However, the only measures taken will be of wellness and health that are internal factors and markers for obesity such as attitudes, beliefs, feelings, and perceptions of physical activity or stress. The model is not based upon the belief that obesity is an epidemic, but instead that individuals need to move their bodies more and feel good while doing so in order to increase vitality and overall health. BMI and other external health markers traditionally used for such programs are not components of the OLA model's effectiveness. However, for the sake of funding and greater widespread community health interest, it is important to consider the obesity issue as one of the health issues addressed by this model. In particular, as children are the future of community health, the OLA approach definitely includes the importance of childhood wellness interventions in the its design. Considering that many children and adults in modern society are

engaging in physical movement far less now than ever before, physical activity interventions, whether for the prevention of obesity or the promotion of somatic awareness, are an entrance point to increasing the whole health of communities.

Why Target Mothers and Primary Caregivers for Childhood Wellness Interventions

The OLA model considers mothers and women of reproductive age (see Appendix B: Definitions) as the target group for the intervention. Many of the current new approaches for health prevention programs have targeted solely children or children while incorporating a parent participation component to increase positive results. If we are referring to a health prevention model that might have the most impact and influence upon current and future low-income communities, then what is the significance of a shift from targeting children to targeting women of reproductive age and mothers?

Many studies have researched school-based programs directed at the implementation of exercise and nutrition education programs. However, there seems to be a distinct absence of research specifically targeting mothers or women in PA programs that include health education. In fact, there seems to be no research on PA programs that include a small amount of health education, such as the OLA model. Research has indicated there is also a deficiency in effective childhood obesity prevention parent participation programs. Some of the research suggests that the efficacy of school-based programs "can be improved by including a parental component" (Nyberg et al., 2011). For example, a pilot program called Transformacion Para Salud exemplified how an intervention using "community-based participatory research, nutrition education, physical activity, gardening, and family involvement" can result in the reduction of children's sedentary behaviors (Cong, 2010). Although this pilot program was rare in its more holistic and integrative approach with a culturally appropriate design for low-income Hispanic community groups, it lacked long-term evidence. The few approaches I found in the research including an educational component with a physical activity

program were implemented in the last few years and had weak evidence at best. The pilot programs and clinical trials of this nature had either a small sample size or were only able to show short-term outcomes.

However, the research did offer evidence for the role of parents for the prevention of childhood obesity and for the implementation of childhood obesity prevention programs. Parents, in general, have an important part in influencing and supporting their child's physical activity behaviors. Parents are aware of the relevant barriers to PA for their children while also controlling access to movement opportunities (DeBock et al., 2010; Dwyer et al., 2009; Nyberg, Sundblom, Norman, & Elinder, 2011). The behavior of parents was noted as a strong determining factor for the physical activity of the child (DeBock et al., 2010; Oliver et al., 2010). In essence, parents are the gatekeepers of environments that support play and motor skill development of their child as well as stage directors for their attitudes towards healthy physical activity. The role of parents within a PA promotion program "may therefore foster more active lifestyles during the preschool years and beyond" (Nyberg et al., 2011). However, what is most interesting to note is that the research of the correlation of PA in children has found how greatly parents influence their children's health behaviors (Nyberg et al., 2011; O'Dwyer et al., 2012; Sallis et al., 2000). "This reinforces the need for prevention programs that explore the feasibility and efficacy of parent targeted lifestyle interventions that aim to influence the health behaviors of children" (O'Dwyer et al., 2012). I propose in this paper that beyond parent-targeted interventions, what is needed are mother/women of reproductive age-targeted interventions if we want to truly influence the long-term health behaviors of children and our entire community. The OLA approach suggests that this focus upon the women of reproductive age and the mothers, most often the primary caregivers in these diverse communities of low socioeconomic status, will create the most impactful change.

General Systems Theory

This shift in a woman/mother targeted promotion perspective can be most easily explained utilizing General Systems Theory. This theory describes the idea of key "social players" in the entirety of a child's life acting as role models which reinforce behaviors and attitudes which parallel the reinforcement of children's behavior changes as well (Von Bertalanffy, 1968). In many current community health approaches, general systems theory is also illustrated with a center small circle that continues to expand with larger and larger circles surrounding the other (see Figure 1).

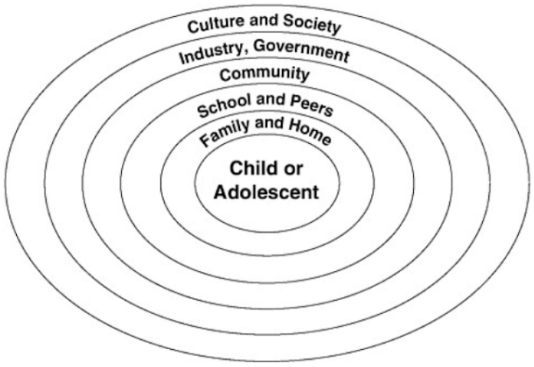

Figure 1. The child-centered approach through the lens of Systems Theory (Carolina Institute for Conflict Resolution and Creative Leadership, 2013, para 5).

This example illustrates system theory with the child as the center. I suggest that inside of that circle should be a smaller circle with woman or mother at the center (See Figure 2).

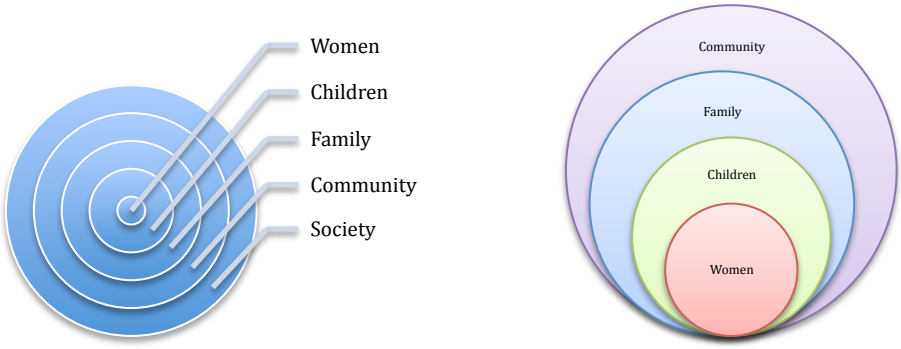

Figure 2. Systems Theory and Community Health – OLA Perspective.

Particularly in low-income, diverse communities, maternal women are often the gatekeepers of health. As pregnant women, mothers, primary caregivers, teachers, and childcare providers, women

of reproductive age can often be seen as making the majority of decisions that most impact health, such as, food and activity in or outside of the home. If one applies this perspective to systems theory, maternal women in low-income communities would be at the center circle of the system. Targeting mothers and women of reproductive age would act like the nucleus of community health education and radiate sustainable positive health behavior changes outward to the highest risk groups of children, spouses, families, and communities for preventable diseases. The health of the children in these women's care is directly connected to the decisions they make and related, directly and indirectly, to that primary caretaker/mother's own health.

"The General Systems theory suggests that involving parents as intervention targets may be effective in fostering healthier life styles in children" (DeBock et al., 2010, para 1). This theory supports the notion that parent participation can play an important role in PA promotion for children. Regarding the health promotion model for communities of low socioeconomic status, this theory is taken one step further to suggest that more mothers and women of reproductive age, or in other words, the primary caretakers for children, should be the intervention target. It is now known how much of an influence the healthy or unhealthy choices that the primary caretaker makes during those primary years have an impact upon the health of the child, both short-term and long-term. As the primary caretaker is most often the mother or another woman in the leadership role (teacher, babysitter, or aunt), particularly in low-income communities, it is crucial to realize that they dictate the food choices and the activities for their children. Applying this theory suggests that as women's health changes positively, the rest of the community will follow.

Life-Course Perspective

The Life-Course Perspective, which many new approaches to women's health are adopting, suggests that the stress and health of a woman over the course of her life not only directly affects her own health as she ages, but also is directly connected to the health of any children she may have.

A woman's health both prior to and during pregnancy has a huge impact upon the potential lifelong health risks for that baby (Fine, Kotelchuck, Adess, & Pies, 2009, p. 3). If the mother is not feeling motivated to implement healthy choices for herself, then she will be highly unlikely to implement them for her child. Conversely, with information and knowledge, a mother can often be motivated to make changes for the sake of her child more than for her own sake.

If a woman is empowered with the knowledge of how her own life-long physical health and stress management is intricately connected to her children, that alone may create a higher motivation towards positive health behaviors. Women tend to be nurturers and caretakers by nature, particularly with a strong instinct towards their own children. By stressing the importance of self-care and women's health for her children, there is an increased sense of selfless rationale for prioritizing her own health. The Life Course Perspective emphasizes the value in health prevention that supports the adoption of an action-oriented intervention such as the OLA approach suggested later in this paper (Fine et al., 2009, p. 4).

Maternal Role in Children's Health

This shift in perspective with women as the nucleus of health begins to empower women in disadvantaged communities towards self-care as a method of caring for their children. Placing a larger emphasis upon the maternal woman or mother's role in the health of humanity as the dominant caretaker, decision maker, and child bearer empowers her to understand and believe in the connectedness of her health to her children. A model which begins to touch upon empowering women in the low-income communities where so much oppression and disempowerment still exists represents a promising possibility for addressing the current state and direction of disease rates for these population groups.

The Importance of Integrating Health Education & Group Physical Activity

Access to group movement opportunities are limited for communities of low socioeconomic status. There are many positive health benefits of participation in group physical activity that can enhance the adoption and integration of health education (World Health Organization, 2013). This can be seen in the increase of so many popular exercise classes such as Baby Boot Camp, Crossfit, Pilates, Yoga, Zumba, Nia, Hula, and many others for middle to high socioeconomic groups (Ace Fitness, 2011). These exercise classes typically cost money or require a monthly gym membership. Only those who can afford classes are able to attend. For women, who are so often the primary caregivers, childcare is an additional cost or barrier to participation. For low-income communities, there is limited access to group exercise options for children as school budgets are severely limited to fun physical education. Additionally, there are little to no community programs to fund low-cost movement classes.

The data presented earlier exemplifies the potential effectiveness for approaches focused on both physical activity (PA) promotion and parent participation. The research literature supports the efficacy of movement based and culturally competent approaches to health promotion. However, there is an absence in the literature for a study that specifically integrates group exercise with health education as a community health model. Research on new health intervention programs targeting children, which includes a physical activity component as well as parent participation, have began to show promising results (O'Dwyer et al., 2012; Sallis, 2000, p. 971).

There is some research on programs to promote PA in different low-income groups suggesting that PA is increased for socioeconomically disadvantaged women when the program has a group delivery component (Cleland, Granados, Crawford, Winzenberg, & Ball, 2013). In fact, research suggests that group approaches to PA interventions are most effective for socioeconomically disadvantaged communities in general (Clelan, Tully, Kee, & Cupples, 2012). However, with few studies showing that PA programs should be part of a health education

approach instead of simply a prescription or recommendation one receives imparted by someone in the health educator role, obtaining grants and funding to implement such an approach may be challenging.

Physiological Benefits of Group PA: Stress Management & Joy

Models that support the empowerment and strengthening of individuals' sense of self-efficacy while improving both physical and mental health are essential. This means a shift away from the current passive, lecture-based "talk the walk" approach to health education programs and a movement towards highly interactive approaches that are more engaging and "walk the talk." Programs that address the need for somatic awareness while building communities and connection are needed. Exercise and body movement have multiple benefits on multiple levels of health (Seaward, 2009, p. 515). However, rather than simply being utilized as a rare prescription or recommendation, experiential movement and PA needs to become part of the standard educational model. When an individual exercises or participates in body movement while amongst a group, it typically increases enjoyment and more longstanding participation. When people enjoy the activity of exercising, they are inclined to engage in it more often.

It is no surprise that positive health behavior changes are increased when the health education delivery method becomes more interactive. Also, considering what we know about the mental benefits of physical activity and exercise, the "feel-good" chemicals released in the brain lift the mood, decrease stress, and open the mind to learn new things (Seaward, 2009, p. 521). In particular, this may include new ideas of how to live a healthier lifestyle in order to reinforce ways to maintain a "feel-good" state as PA "increases brain cell tissue associated with memory" (Seaward, 2009, p. 512). Additionally, the communal aspect of participating in physical activity within a group creates has the potential to foster connection and increase motivation for more regular participation. The increased result could be attributed to a higher sense of accountability and enjoyment while

exercising with others. Finally, the powerful component of laughter and joy is not to be underestimated, not only for increasing one's motivation to engage in physical activity, but also for the increased health benefits of one's mind, body, and spirit (Seaward, 2009, p. 520). As was mentioned by the Surgeon General earlier in this paper, the reward of invigorating, joyous health, must be the goal rather than BMI or weight (Office of the Surgeon General, 2010, p. 12).

Taking advantage of the feel-good brain chemicals that come from exercise and positive mental side effects, implementing interactive experiential learning opportunities, and benefitting from the collective energy should all support an increase in short and long-term positive health behavior outcomes. This is exemplified when observing middle and upper-income communities and the consistent popularity of varied group exercise classes. Most often, people enjoy exercise more and participate more continually when they have a community of support. However, low-income communities are underserved and have few to no affordable options for organized group exercise with a trained practitioner.

Cost-Effective Benefits of Group PA

As funding for health prevention programs are slim, cost-effective approaches are key. Implementation of the OLA model is such a cost-effective program by taking advantage of the group education aspect. Group classes save time and money while being able to utilize one or two health professionals to reach an entire group all at once. While individual coaching and personal training is a personalized approach to health and also highly effective, it doesn't reinforce the idea and provides no feeling of community. A different level of learning and enjoyment can come from a group learning environment while simultaneously offering a cost-effective option for the limitations of community health funds (Lieb, 1991).

Roots of the OLA Model: Philosophical Underpinnings

While creating the framework for this project and the OLA model, it was important to have up to date and relatively strong roots as a basis beneath the model. As cultural competency is key in the community health realm, my proposed model needed to be solid enough to translate into a variety of public health circles yet malleable enough to be tailor-made for each specific population and community group. This required more than just being aware of the current research on past and current models, but also having a firm philosophy beneath the approach itself.

The model proposed in this paper, OLA, is deeply influenced by the following philosophies: cultural competence, participatory planning, self-determination theory, motivational interviewing, the importance of self-care, and horticultural therapy concepts. (See Figure 3 for an overview of the philosophical underpinnings of OLA.) In the proceeding sections, I will describe my rationale for why these philosophical influences are essential to my approach to community health promotion, particularly the OLA model, as an integrated change model for the positive impact of health.

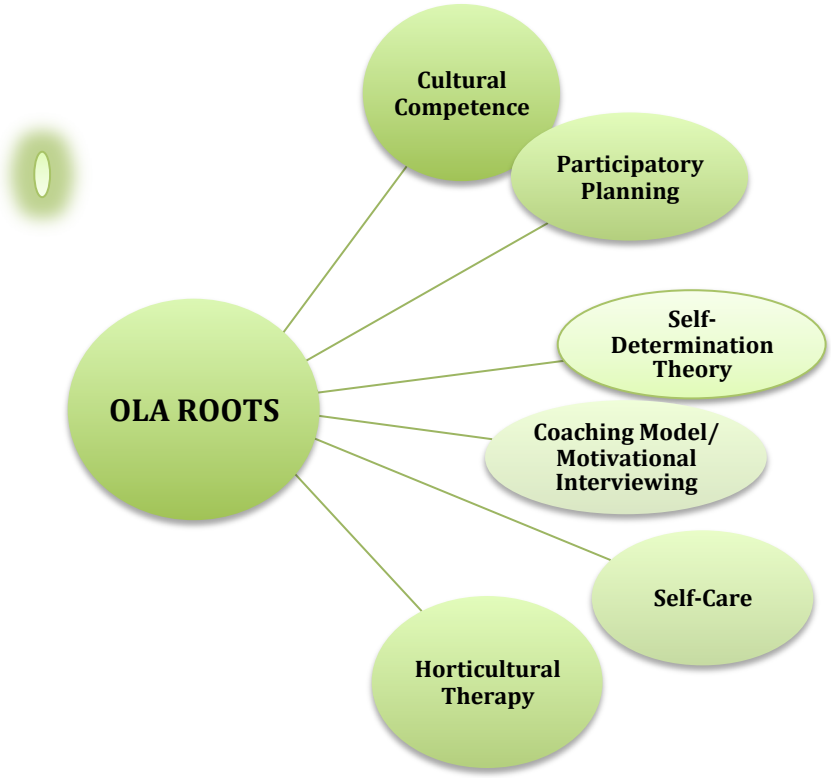

Figure 3: Roots of OLA: Philosophical Underpinnings.

Creative Cultural Competence

One of the first roots of the OLA model proposed in this paper, is a strong consideration for the need of a culturally competent approach to community health promotion. An approach that has a holistic framework and integrative approach, yet has space to be designed for the nuances of each specific community group and their specific cultural considerations. Physical activity juxtaposed with health education both specific to the needs and interests of that particular population group is viewed as the framework for tailoring a culturally competent approach. Cultural competence requires continual consideration and reconsideration of how to holistically work with individuals who are each completely unique, rather than perceive them as simply part of a generalized group (Office of Minority Health, May 3, 2013). This model has at its foundation the space to be tailor-made for the health education needs and physical activity interests of that group.

By providing culturally competent physical activity opportunities and classes, then combined with the current agenda of health information for the purpose of motivating positive health behavior changes, a deeper, integrated, and more lasting learning will take place. Recommending an at-home exercise DVD or prescribing daily walking does not have the same impact as a free or affordable movement class. Zumba fitness is one current example of this phenomenon. By providing a fun, flexible format for their classes, and with relatively easy teacher licensing training, Zumba fitness has managed to expand their classes all the way from the up-scale fitness clubs to the local community centers to the public school gymnasiums all the while decreasing the affordability barriers (Pennino, 2012). They have been able to empower and enable a diverse, global population to provide and participate in Zumba classes (Pennino, 2012). It seems that the fun, party-like philosophy and flexible class structure allows for enough variety to attract a wide variety of individuals.

For many reasons, populations in low-income communities are reportedly becoming more and more sedentary (Active Living by Design, 2012). Creative ways to reduce those barriers to

exercise and increase sustainable opportunities on very limited budgets are becoming a global priority (CDC, 2011a). On a national level, officials have begun to prioritize the creation of community-based plans to encourage increased body movement. Ride your bike to school days, walking groups, after-school physical activity programs, are just a few examples of ideas being encouraged by these plans (CDC, 2011a). However, nothing speaks louder than action. An action-oriented approach might be extremely effective to replace the talk-oriented public health programs with less "talk-time" and more "act-time."

The OLA model is an evidence-based, culturally competent model that "walks the talk" and is a solution to this need for new and more effective community health prevention programs for socioeconomically disadvantaged maternal women and children in underserved communities. This approach fills a gap for a model that integrates group exercise and movement opportunities with health education while reducing barriers to access and increasing positive health behavior changes. However, the development of this model is intended to have a framework tight enough to be replicated yet leaves room for it to be appropriately culturally adjusted to serve the wide spectrum of diverse nuances in the varied population groups at-risk.

The key features of this model include regular offerings of group exercise options for women and children, separately and together (Cleland et al., 2013). The exercise or movement classes will be culturally appropriate and of interest to that specific group and led by trained practitioners who also have training in human services as well as experience with that population, or will collaborate with another professional who does. The format of each class will be tailor-made in terms of how to weave in the health education components. The mission of these classes is based on individual and community empowerment with a byproduct of increasing positive health behaviors. Effective evaluations of these classes and this model will be based upon improvement of knowledge, behaviors, and attitudes around the top priority health concerns for that particular

group, as well as feelings and perceptions of a decrease in stress, increase in community, and individual empowerment.

Additionally, barriers to engage and participate in physical activity and exercise classes will be explored while designing each specific community class program (Cleland et al., 2013). For example, this model includes barriers to accessibility for mothers and considers the potential need for childcare in order to facilitate participation. However, if location and facilities allow, the ideal format will offer simultaneous movement classes for children at the same time as classes for women/mothers. If this is not possible, family exercise classes will be encouraged which will then open space for the creative development of integrating both children and parents together into movement and PA classes. Also, any alterations needed in order to facilitate the health participation of individuals with any kind of mental, physical, or emotional disability will be considered vital to the development and implementation of the approach to the class session.

Participatory Planning

Another philosophical root of the OLA model is the consideration of a participatory approach to the planning process (Community-Campus Partnerships for Health, 2013). From a community-based participatory research perspective (CBPR), one idea that comes from a recent study suggests that a similar participatory approach in the creation and implementation of the program itself "might foster a sense of self-determination, create greater commitment, and eventually lead to greater effects" (Bruss et al., 2010; DeBock et al., 2010). In a case study entitled *Engaging Low-Income Parents in Childhood Obesity Prevention*, recently published in the Journal of Community Health, the notion of parental involvement throughout the entire research and planning process was examined:

> Given the history of hierarchical relationships between low-income families and service or health professionals, engaging parents throughout the research process may serve to open

> communication, break down hierarchical relationships, and build trust…expands upon CBPR literature on childhood obesity prevention by engaging parents directly throughout the entire research process with the goal of fostering parent empowerment…There is a growing body of research and relevant theory that emphasizes the importance of utilizing parents as change agents in childhood obesity prevention. (Jurjowski et al., 2012)

In the attempt to create an effective and sustainable health promotion program to promote movement, the OLA model integrates CBPR ideas into the actual design of the PA program in order to increase participation and create improved long-term behavior changes.

Self-Determination Theory – Positive Intrinsic Motivation

The OLA model includes another key philosophical underpinning based on Self-Determination Theory (SDT) as the guiding model of change for this approach. This significant aspect of the OLA model is primarily based upon internal motivation to change versus external influences (Deci & Ryan, 1985b). SDT distinguishes between autonomous and controlled motivation for change (Ryan & Connell, 1989). One author explains the difference as the following:

> Autonomous regulation involves experiencing a sense of choice, a sense of full volition. When autonomous, a behavior is felt to be personally important and congruent with one's deeply held values. The behavior emanates from one's true sense of self and is thus considered self-determined. Controlled regulation, in contrast, involves people feeling pressured or coerced by an interpersonal or intrapsychic force. When controlled, people behave because of a demand, threat or reward from an external agent (e.g. a health-care provider), or because of a rigid belief that they should do it—that they have to do the behavior to feel worthy. (Williams, Minicucci, Kouides, Levesque, Chirkov, Ryan, & Deci, 2002, p. 513)

The creation of a space for a group to gather and participate in physical activity that interests them with a teacher who has an understanding of the health-coaching model can support that spark of the internal motivation through an external experience. External factors such as community, accountability, physical activity, and a "health coach type" movement teacher all supports, livens, and awakens the deeper internal motivation for positive change.

In order for individuals to truly change, something has to become alive in them to orient towards the innate inclination of health. However, the current culture of disease has disconnected the vast majority of the population from true health and vitality. Western medicine and the Cartesian paradigm continue to contribute to this disconnect while maintaining the treatment and cure focus instead of prevention focus. As this paradigm begins to slowly shift, the yo-yo reality of change in individuals illuminates how externally motivated change only lasts so long. True, sustained, and lifelong change has to come primarily from an internal drive or else it holds no solid value.

The change process is based on holistic health promotion and is based on a balance between internal and external change. However, internally motivated change and a felt sense of well-being is the drive and force behind any sustainable changes of this approach. At the core of health promotion based upon intrinsic motivation is raising consciousness rather than focusing solely on the external changes of behavior (Robison & Carrier, 2004). Behavior change is no longer the primary focus of intervention.

In this approach, the health professional only seeks to support people as they seek to better understand and more skillfully cope with their life struggles. As people are supported to view health behaviors in the larger context of their lives, then they are freer to decide what healthy means for them. The following is a variant of a quotation from Kuan-Tzu, 720-645 B.C ere is an ancient proverb: "If you give people fish they can eat today. If you teach people to fish they can eat

forever" (as cited in Robison & Carrier, 2004, p.180). Jerrold Greenberg applies this concept to health promotion, nothing that "Giving fish in health promotion—telling people how to behave—is not freeing people. Teaching them to fish for themselves…is" (p. 180). This approach does not view individuals as information-processing machines but as meaning-generating beings. Individuals will still be provided with information. However, there is an understanding that the meaning that individuals attach to information is something that should not and cannot be controlled from the outside (p. 180).

With stimulation of the external "feel-good" stimuli of pleasurable physical activity, the internal desire for health is sparked open and becomes more responsive to necessary health behavior changes. Whether these changes are motivated by the presented educational components or from a deeper intuitive place in a person's being, the outcome will be the same as deep down the minds, bodies, and spirits all have a craving and natural orientation for health, wellness, and vitality. Coinciding with this theory of change for women and mothers is also the power of children to motivate their mothers' drive towards health. Young children are more connected to the natural inclination to be healthy while being more resilient and less clouded with resistance to change. This model does anything BUT underestimate the power of children to motivate the mother to make positive health behavior changes. It is a reciprocal relationship that is most definitely considered in this approach.

Holistic Health Coaching Model – Motivational Interviewing

Motivational interviewing (MI) is a key component to many current health behavior intervention programs and is also an additional root beneath the OLA model proposed in this paper. The health-coaching model from a holistic perspective is rooted in supporting an individual to discover the answers they already have within and connect with their higher self and potential that will orients towards truth, love, and health (Bark, 2011, p. 4). This is significant because it is a model

of change that empowers individuals with their own internal wisdom (Miller, 1995). Both the spirit and the principles of motivational interviewing reflect the same approach expected for the OLA approach. MI supports collaboration, autonomy, self-efficacy, and empathic listening (Miller, 1995, p. 4). MI also describes particular stages of change that can help practitioners develop empathy (Miller, 1995). Current models of change support the concept that there are so many others sources of knowledge outside of oneself in order to "know" or learn what is healthy. External wisdom and health knowledge is placed at a higher value instead of tapping into the internal, felt sense of wisdom, health, and well-being. However, I propose in this paper and for the OLA model that MI is more effective model of motivation for the low-income at-risk populations.

Motivational interviewing at its core enables a practitioner to hold a space for individuals to discover their own "truth" and desire towards health:

> The "secret" from a holistic perspective is that people do not need incentives or motivation or stages of change to "make" them do something they love! In Holistic Health Promotion our job is to help people to find their joy – to find what it is that puts them into a state of flow and that helps them to feel that their lives have meaning. Once they find these things, they will not need our water bottles and T-shirts to ensure maintenance! (Robison & Carrier, 2004, p. 178)

This same philosophy holds true in the OLA model as the health professionals need to truly commit to act from the core principles of motivational interviewing. At its base, motivational interviewing sets a guide for how to communicate and interact with individuals as a group.

Beyond the technique and perspective of MI, is also a deeper concept of holistic health coaching approach. This model considers the role of the health professional or "coach" as a whole person, and then each client is also a whole person. In order for true change to happen, at minimum the coach needs to be working as much as a whole person as possible. This relationship

between the health professional in the role of coach and the client is a dynamic partnership (Bark, 2011, p. 4). "The more the coach can listen and ask powerful questions that speak to the essence and multifacetedness of the situation, the more the coach can help clients sense the whole picture" (Bark, 2011, p.4). This is the real power behind the holistic health coaching model that informs the way in which both the group PA instructor and/or the human service professional are to be interacting with participants in Project OLA classes. This perspective further allows the individual a higher chance of real, sustainable, lasting changes. "The client's decisions will be more authentic, efficient, and accurate because they're aligned with more parts of themselves" (Bark, 2011, p. 4).

Health Educator Self-Care & Support

Another philosophical root of the OLA model is the belief in the importance of self-care for the PA practitioner as well as the community health or social service professional. Burnout with health professionals who work in the field of community health is high, as there is so much need coupled with lack of resources in communities of low socioeconomic status (Borritz, Rugulies, Bjorner, Villadsen, Mikkelsen, & Kristensen, 2006). Those who go into the work most often have a desire to serve and make a difference. The boundaries between service and self-care often get blurred when health promotion models lack any sort of built-in checks and balances for the health educators who implement the programs. The stress levels of working with individuals and groups with so many health challenges can be very high. A sort of *vicarious dis-ease* can easily transmit upon the health promotion professionals themselves (Jenkins & Baird, 2002).

The nature of the OLA model includes a built-in consideration for the importance of self-care for the health promotion professional. This operates within the belief that health professionals are more effective in their work with others if they are caring for their own health and practicing self-care. As was mentioned earlier, the holistic health coaching perspective also reinforces that as a health professional is in the acting role of "coach," it is imperative that coach be working from a

whole person space (Bark, 2011, p. 16). One way in which this happens in the OLA model is that through collaboration and co-creation of planning the movement intervention and details of implementation, a sense of support is facilitated as well as space for using one's own experience and creativity. Another way is through the actual implementation of the movement class as this provides opportunity for both professionals to participate in "less talk" and more action. The natural benefits of exercise then get to be part of the work day and allow for the health promotion professional to also apply what is being taught, while also caring for his/her whole self.

Increased Benefits of Horticulture as a Therapeutic Modality

Lastly, an important and yet subtle root of the OLA model proposed in this paper is the importance and value of horticultural therapy for enhancing the positive health behavior outcomes in community health education. The implementation of the OLA model takes into consideration the increased health benefits of horticulture as a therapeutic modality (Haller & Kramer, 2006, p. 12). This scientifically based information reports the therapeutic and individual healing as well as improved learning when plants and nature are incorporated into the educational environment (p. 14). For the purpose of this model, the horticultural therapy component is loosely defined on a continuum that can provide from a simple guided imagery that utilizes nature images to offering the classes outdoors when possible all the way to actual hands-on interaction with plants and nature. However, with the intent to encourage deeper connection with oneself and with others for the promotion of positive health behavior changes, even the slightest consideration for the power of nature and plants in promoting health and healing is a subtle yet powerful tool to enhance the promotion of movement and health education (p. 15).

Original Research: Project OLA Pilot Program

Before describing the holistic community health promotion model in further detail, I will first share a brief overview of the original research, its methods, and the data analysis that went into

the development of the program (see Appendices C & E). This data suggests the need for this holistic approach that integrates PA with health education. The physical activity modality was decided and chosen by a volunteer group of parents in a community leadership development program with children ages zero to five years old in a low-income, diverse community. The objective and overarching goal was also decided upon from a participatory planning approach. The parent leader group's priority for offering the physical activity program was to reduce and prevent childhood obesity by increasing access to and providing more physical activity programs for children in the community ages zero to five years old. Then, based on this representative parent leader group, they elected for the provision of Zumba and asked me to implement such a program.

While I provided two separate sessions of classes within one year, I continued to design and implement a class session framework that not only provided Zumba for the young children but also included parent participation and a health education component. During that time, I implemented a short survey to measure efficacy and get a better sense of this population's response to taking a paper questionnaire survey. Informal interviews with parents who participated in the program and from the leader community group, informed the design of the classes and curriculum. Then, based on the synthesis of data, I continued to refine the development and implementation of the OLA model.

Through the same community partnership, after a year of implementing two sessions of the very preliminary pilot program, I offered a third session with more classes, larger class sizes, and implemented pre- and post-evaluations. I facilitated a six week class session with one class per week that included both children ages two to five years old and their mother or primary caregiver. Using pre- and post-testing, the desired outcomes for the group were shown to be positive. Finally, informal follow-up interviews were conducted with a random sample of five out of the sixty parent

pilot program participants to get feedback on the model and its potential for further improvement, as well as to assess for short and long term sustainable outcomes.

The purpose of the pilot program was to test out a final run of the model in order to assess the effectiveness of a learning approach that integrates group physical activity with health education while targeting maternal women and including their children. The pilot program consisted of self-selected participants from the socioeconomically low surrounding community who had children ages two to five years old. The class session was advertised through flyers in local libraries, schools, Head Start facilities, and Medicaid clinics.

The class session was six weeks long, with one class per week. There were three classes available for registrants, with an average size of twenty children plus mother/primary caregiver per class. A basic registration form, signed liability waiver, and a $10 registration fee were all that was required to participate. A total of 57 children registered, each with one participating parent, most commonly mothers or the rare alternative primary caregiver.

Before starting the first class of the session, all participants completed a pre-test of five questions to assess their attitudes, beliefs, and values in relation to the objectives of the class session and health behavior priorities chosen to assess core competencies of the approach. The survey tool utilized was an Adhesive Format Barometer and self-adhesive sticker dots to mark answers (Paleo, 2012; see Appendix C). The goal was to implement a questionnaire that not only reinforced the positive health behaviors in mind but also in body as participants were able to engage with the survey tool in a more relaxed, fun manner (Paleo, 2012). Also, it was designed to be a measurement to encourage self-awareness, self-efficacy, and positive reinforcement of positive, more embodied health behaviors learned experientially in the classes.

Comparing the pre- and post-test health behavior outcomes measured the effectiveness of the program. However, as the final class of the session was planned as a combined class party and

potluck, it presented challenges in attaining all participants to answer the post-test. In spite of the obstacles to involving all participants in both the pre- and post-testing questionnaire, the outcomes suggested the model's effectiveness (See Appendix C). Therefore, the mini-pilot program positive health behavior outcomes suggest the efficacy of a model that integrates group PA with health education.

OLA Holistic Basis & Somatic Awareness/Education

Using a holistic paradigm as the framework, the OLA model is a community health program model based on holistic principles of the body as *Soma*, or mind-body, and the holistic perspective of whole health of individuals to include the mental, physical, emotional, and spiritual aspects (Hartley, 2004). (Figure 4 provides an overview of the OLA holistic approach.) The mind, body, emotion, and spirit health connection stems from Albert Einstein's theory of relativity that says that all matter is energy and all is connected. Basically, this means that no single part "can be affected without all the connecting parts similarly being affected" (Seaward, 2009, p. 25). This parallels the holistic wellness paradigm that suggests that "total wellness is the balance, integration, and harmony of the physical, intellectual, emotional, and spiritual aspects of the human condition" (p. 26). These aspects of health and well-being are interconnected like a web so they are all essential to be considered when intending to affect health of the "whole" person. Therefore, the approach for delivery of each class will consider and incorporate activity and education that promotes the mental, physical, emotional, and spiritual health of the individuals, as well as the group as a whole. The course content itself will have a flexible format able to be tailored to each particular movement modality and community group.

Somatic-based approaches to community health education based on the empowerment of maternal women will then eventuate in the empowerment of families and then the larger community. This theory is holistically based in the idea of Soma and the mind body connection, as

well as General Systems Theory. Movement is seen as an exploration that opens up and releases old patterns of resistance to change. Exercise can be perceived as an indicator for change as it neurologically increases opportunity for the brain to rewire. Somatic psychology has begun to have evidence for this powerful idea of soma (Hartley, 2004). Movement and exercise are already known to increase the feel good chemicals in the brain. This release of chemicals along with a deeper sense of embodiment has with it a power to create an opening for people to better listen and then apply health behavior changes.

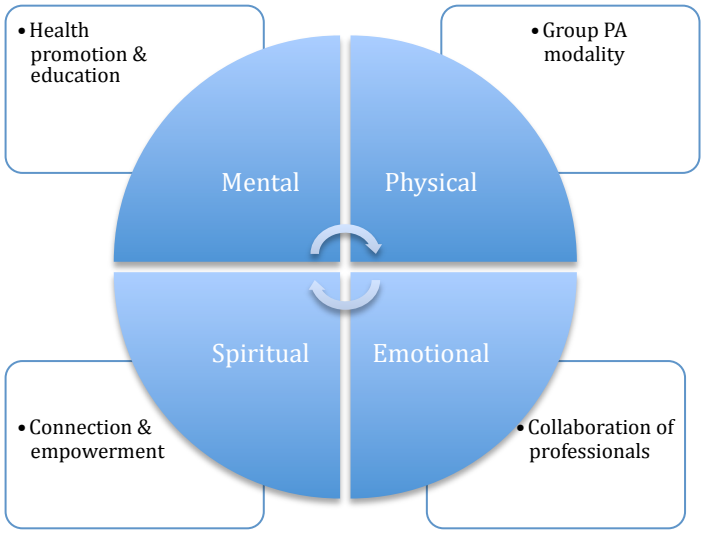

Figure 4. OLA Holistic Approach.

Physical – Group PA Modality

Physical well-being: The optimal functioning of the body's eight physiological systems (i.e., respiratory, skeletal) (Seaward, 2009, p. 29)

The specific movement modality will be based upon the participatory planning process of representatives from the community group in which to be served. The actual physical activity will be culturally appropriate to the needs and interests of each population group of women and children (i.e., Yoga, Zumba, Hula, Tae Kwon Do, Tai Chi, etc.). The movement modality will then be some

physical activity that interests and potentially brings joy to the majority of potential participants in that particular target group.

This aspect of the approach is intended to encourage healthy movement and begin to awaken the somatic awareness within the body, individually and collectively. A culturally appropriate physical activity class also intends to provide a platform for communal exercise within a modality that is enjoyable with a sense of community in order to increase continued participation. By providing a movement space that is safe and noncompetitive, the supportive environment will increase joy and laughter and decrease stress.

Mental – Health Promotion/Education

Mental well-being: The ability to gather, process, recall, and communicate information (Seaward, 2009, p. 29).

The health education component will need to take most consideration to apply cultural competence in the delivery of information. The specific areas of health promotion will address the top priority health risks for that particular community. Cultural considerations for communication style and any barriers to learning will inform deliver method (i.e. adult-learning practices).

The three aspects to be considered in the implementation of each tailor-made health education component of the OLA model are nutrition, stress management, and somatic awareness. The nutrition education is intended to be subtle sprinkles of nutrition reminders with a more "coaching" style. The stress management piece is the basic introduction of relaxation techniques through actual practice and experience in the class. Nature/horticulture as a therapeutic modality will complement the implementation of this piece whether through the utilization of guided visualizations in nature or sensory experiences with plants. Somatic awareness is encouraged through engaging in the class with "less head and more body" as well as lead by example.

Spiritual – Connection and Empowerment

Spiritual well-being: The state of mature higher consciousness deriving from insightful relationships with oneself and others, a strong value system, and a meaningful purpose in life (Seaward, 2009, p.29).

The spiritual component is addressed in this model in that the positive interaction with others while participating in a physical activity of mutual interest decreases barriers of communication and increases the sense of self-efficacy. Through the provision and creation of a supportive, safe environment, the human spirit can be touched and encouraged with the sense of collective energy and goals.

The first way this is promoted is through the felt experience of health as the physiological response to exercise creates space in the bodymind to break up the resistance to change and open up to positive health behavior changes. Secondly, the shift in targeting women of maternal age for the purpose of placing higher value upon her interconnected role to children fosters the intuitive understanding of the mother/caregiver to child health connection. Lastly, a deeper connection with self and other will awaken the innate internal motivation towards sustainable healthy changes. A more embodied woman can begin to deepen her sense of inner consciousness that will naturally orient towards health. This spiritual component may be difficult to measure or show, but it is about providing (if only moments) of that felt experience of true, inner health and vitality.

Emotional – Collaboration of Professionals

Emotional well-being: The ability to feel and express the full range of human emotions and to control these feelings, not be controlled by them (Seaward, 2009, p.29).

The emotional component is addressed through the consideration and care for the emotional health of class participants from diverse, underserved, and often at-risk individuals by requiring population and site-specific tailoring of curriculum implementation. This is done through the collaboration and co-creation of both movement professional and community health worker. In addition, all classes/sessions/workshops will participate in ongoing evaluative research to provide

feedback as well as to inform and further develop the program model. Project OLA consultants will supervise this component to assure proper consideration is taken for both the emotional health of participants as well as practitioners. Consideration of the whole health of individuals, both the practitioners and the participants, is vital to deepening this aspect of the approach.

Project OLA: The "OLA MAMA" Model for Low-Income Women & Children

Description of Intervention & Program

The OLA model is based upon the claim that when a specially tailored and culturally competent group exercise program is combined with health education for maternal women and their children then the highest priority health behavior outcomes for that population will improve. Positive health behavior short-term and long-term outcomes will indeed increase for underserved groups when they participate in such a culturally appropriate program. Each class includes physical activity, emotional support/encouragement (and any considerations specific to that group), spiritual space to begin to connect somatically, and mental knowledge in the form of droplets of teaching. The way in which that precisely looks will be different based on the style of each teacher/practitioner and the collaborative partnership of the human service professional (see Figure 5). In addition, the participatory planning component and feedback from the community also informs the program modality, design, and implementation. There is great flexibility for the way in which each class is actually delivered (see Appendix A).

Implementation of Curriculum

Key Features of OLA Curriculum Design:
• 4 – 6 week sessions—ongoing & flexible in class design/implementation
• Collaboration of professionals to design
• Applied to any healing movement modality/physical activity

- Includes maternal women, mothers, and children at varying degrees

Figure 5. Key Features of OLA Curriculum Design.

Physical activity and movement must precede any attempt to implement relaxation activity and/or health education offerings. The primary time spent in the group class will be on movement and physical activity (about 70-80%). The rest of the time spent in class will be for introducing relaxation techniques and somatic experiences in a culturally competent way, albeit brief ones at best. Also this time will be for the practitioner to then be in the role of "health coach" by reinforcing verbally and briefly small positive health behavior changes that coincide with the overarching desired health outcomes (about 20-30%).

The ideal format for classes are sessions that last four to six weeks each to include one or two classes per week. As interest grows and participation increases, ongoing class sessions back to back would be optimal for continued involvement. When possible, the classes will be designed for all women of reproductive age, parenting mothers, and children to participate in class together (see Appendix E). Depending upon the movement modality and needs of the specific group, a secondary format would provide simultaneous PA classes for both women and children but in separate groups. The least optimal format is the provision of classes for maternal women with free childcare that then integrate the children into some part of the session or class time.

Location of classes will be subject to the specific modality. However, in underserved communities, central and accessible locations are recommended, including churches, school cafeterias, community centers, parks, or other locations that facilitate easy access and usage for children and women in the target population.

Co-Creation and Collaboration

Part of what makes this model culturally competent is the allowance for an organic, intuitive, co-creation to take place between the partnership of the exercise (PA) professional and the human

service professional. In addition, the organization and planning of which modalities or types of group classes to offer are primarily chosen by a representative focus group from the target community. Also, the evaluation method and tool used (Adhesive Formats) considers the importance of utilizing a method that reinforces the intent of the classes as well as the positive health behaviors themselves (Paleo, 2012). The ideal version would be a true collaboration between the representative community member group, the PA professional, and the human service professional in order to reflect the influence of community based participatory research concepts.

Optional Design Methods

Mental, physical, spiritual, and emotional aspects will be approached and designed by one of the following methods:

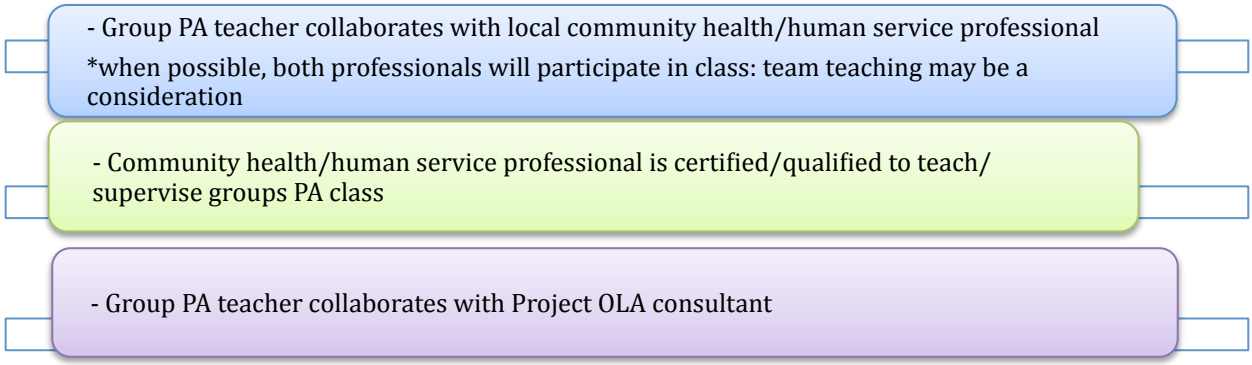

Figure 6. Optional OLA Approaches to Design/Implementation of Program.

At this point in the design and implementation of the OLA model, these are the three different approaches that may be used. Each of these optional methods ensures the integrations of knowledge and experience from both a group PA professional and professional with human service training or experience. This is essential to creating a tailor-made approach that is able to effectively consider the holistic aspects of the model while also safely implementing group movement for at-risk populations. It also enables continued development and ongoing evaluation of the model in order to improve upon it, while also building evidence.

Highlighted Components

The OLA model is considered a framework for an approach to community health education. However, as it is a model, that definition in and of itself signifies that it is not concrete. Instead, a model is meant to imply an approach that is to constantly be changing, growing, and evolving. It is a preliminary work that serves to inform creation of a final product. Therefore, the OLA model itself and any implementation of the model, is to be considered a work in progress. This process falls within the larger context of what I am referring to as "Project OLA", the overarching project and mission beneath which the OLA model will be destined to take additional shape potentially even morphing into something very different. Consideration of this approach as a "model" in this context will allow it to truly put into action the philosophies upon which OLA is based. In other words, Project OLA is the mission and larger purpose behind the model itself.

Project OLA Objectives:
• Development, implementation, and evaluation of culturally appropriate group movement and PA opportunities for underserved low-income women of maternal age and children utilizing a health education framework
• Provision of alternative somatic-based opportunities for low-income women and children for the purpose of motivating healthy changes
• Training and utilization of local certified practitioners with experience in community health and human services in order to provide a variety of group exercise modalities so as to promote healthy communal relationships, decrease stress, and increase positive health behavior changes
• Empowering underserved communities of women and children towards positive health behavior changes through the integration of group exercise and health education and strengthening the sense of self-efficacy, "walking the talk" approaches replacing the current less effective "talking the walk" type of public health model
• Aims to increase positive health behavior outcomes while providing women and their children with embodied experiences of joy and connection that decrease stress and increase motivation for change

• Providing culturally competent PA opportunities that are selected, scheduled, and organized by the local community participant groups themselves in order to reduce barriers and increase participation based upon the ideas of participatory organization (CBPR approach)
• Creating windows of opportunities to integrate nature/horticulture as a therapeutic modality that supports the overarching goals of the model

Figure 7. Project OLA Objectives.

Project OLA outlines the goals and objectives of the OLA model and includes the following components: the development, implementation, and evaluation of culturally appropriate group movement and exercise opportunities for underserved low-income women of maternal age and children utilizing a health education integration framework; will provide lower income groups of mamas and children with alternative somatic based opportunities for which to motivate healthy changes; the training and utilization of local certified practitioners with experience in community health and human services in order to provide a variety of exercise modalities in a group setting so as to promote healthy communal relationships, decrease stress, and increase positive health behavior changes; a focus on the empowerment of underserved communities of women and children towards positive health behavior changes through the integration of group exercise and health education and strengthening the sense of self-efficacy, "walking the talk" approaches replacing the current less effective "talking the walk" type of public health model; aiming to increase positive health behavior outcomes while providing women and their children with embodied experiences of joy and connection that decrease stress and increase motivation for change; the provision of culturally-competent physical activity opportunities that are selected, scheduled, and organized by the potential local community participant groups themselves so as to reduce barriers and increase participation based on the idea that participatory organization and planning allows for increased motivation as well as multiple levels of empowerment, both for individuals and communities; creation of (albeit

small) windows of opportunities to integrate nature/horticulture as a therapeutic modality that supports the goals of the model (see Figure 7).

Ongoing Evaluation

Ongoing evaluations that reinforce positive intrinsic motivation and health behavior change will be implemented. In addition, evaluation tools used will be culturally competent and will itself act as a positive reinforcement method of the experiential teachings that come from the classes themselves. Simple, adhesive formats will be suggested, particularly for low-literacy groups (Paleo, 2012, p. 1).

Summary & Future Projections for Community Health Models

A future long-term research study of a larger scale Project OLA pilot program, or any other similar holistic community health models, would greatly benefit the field of community and public health. A study to measure the efficacy of a such a holistic community PA program that promotes health through the integration of movement and education would not only support further development of the OLA model, but would also serve the much needed development of new research and the creation of more holistic approaches for underserved communities. As was discussed earlier in this paper, the research literature supports the efficacy of movement based and culturally competent approaches to health promotion. However, there is an absence in the literature for a study that specifically integrates group PA with health education as a community health model, particularly one that targets maternal women and children.

The OLA model offers a cost-effective movement-based approach to community health prevention programs for many of the top priority health concerns facing global society today. It is holistically grounded upon the concepts of mind, body, spirit, and influenced by widely accepted approaches to learning as well as the scientific support of the positive mental effects of exercise. This model could be used as a childhood obesity prevention program with a parent participation

component, a parent/mother intervention program, or even could be described as simply the beginning of a new approach to community health education and wellness promotion programs. No matter how one views this model, at its core it is centered upon an appeal to the individual's need for motivation for change that is all about implementing action versus talking about acting. The "do as I say, not as I do" mentality is a sentiment of the past, as we see countless examples of its limitations. The necessity is to establish room for true inner motivation if there is to be any hope for sustained changes to personal health. This experiential approach is focused on awakening individuals' innate orientation toward healthier lifestyle choices by allowing them to physically experience the reward and ultimately is about empowering them to create change for themselves, their children, families, and communities.

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APPENDICES

Appendix A:
PROJECT OLA: THE "OLA MAMA" MODEL
An Empowerment Based Model for a Pilot Community Health Prevention Program

Curriculum Goal:

- **Intervention:** Project OLA is a multi-component intervention program aimed at prevention and control of childhood overweight and obesity. It is inspired by community-based participatory research in its approach and design model, including culturally appropriate health education, physical activity, and women/mother/child involvement.
- **Target audience:** At-risk women of reproductive age and/or mothers/primary caregiver and young children (12 and under) of low socioeconomic status
- **Goals:**
    - To decrease health risks for highest risk health concerns of that particular population group
    - To increase physical activity in families (children & mothers) through providing underserved populations group exercise opportunities, decreasing barriers to physical activity and increasing access
    - To provide culturally competent health promotion through a 'walk the talk' model integrated with physical activity
        - To provide nutrition education
        - To decrease stress and teach creative, simple stress management techniques
        - To increase somatic awareness
    - To create a sense of community and social bonds through group exercise
    - To empower women of maternal age towards vitality and health
    - To provide small windows of opportunities to integrate nature/horticulture as a therapeutic modality

Learning Objectives:

By the end of the 6-8 week class session (6-8 classes/40-60 minutes each/total of 8 hours per session), students are expected to:

- Feel more confident in having fun while moving their body
- Demonstrate an increased motivation towards healthy food choices for themselves and their child and motivation to frequently dance, play, and exercise on their own and with their child
- Understand from a deep, felt sense that their own mental, physical, and emotional health is as important as their child's whole health
- Feel confident and able to manage stress in creative, simple, and effective ways
- Develop an increased sense of connection and positive interaction with others
- Increase positive health behavior outcomes
- Increase motivation to continue and sustain healthy changes

Outline of Course Content: (Flexible format – tailored to each particular modality/group)
Physical, Mental, Spiritual, & Emotional Components

A. Group Physical Activity (PA) Modality – *Physical (Body)*

Culturally appropriate to the needs and interests of each population group of maternal women and children (i.e., Yoga, Zumba, Hula, Tae Kwon Do, etc.)

- Movement – to feel confident and have fun while moving body
- Motivation – provide a platform for communal exercise in a modality that is enjoyable which will increase continued participation
- Laughter – safe, noncompetitive, supportive environment

B. Health Promotion/Education – *Mental (Mind)*

Culturally competent - Specific areas of health promotion will address top priority health risks of that particular community; cultural considerations for communication style will inform delivery method (i.e. verbal, visual, experiential, etc.)

- Health Education/Nutrition – sprinkles of nutrition reminders "coaching" style
- Stress management – integration of relaxation techniques
- Somatic awareness – walking the talk, less head and more body

C. Connection & Empowerment – *Spiritual (Spirit)*

Positive interaction with others while participating in a physical activity of mutual interest decreases barriers of communication and increases sense of self-efficacy. Supportive, safe environment encourages a sense of collective energy and goals.

- Felt experience of health – physiological response to exercise opens up for space in the bodymind for positive health behavior changes
- Intuitive understanding of mother/caregiver-child health connection
- Internal motivation for sustainable healthy changes

D. Collaboration of Professionals – *Emotional*

Consideration and care for the emotional health of class participants from diverse, underserved, and at-risk individuals requires population and site-specific tailoring of curriculum implementation. All classes/sessions/workshops participate in ongoing evaluation research and are supervised by Project Ola to inform/develop pilot program model.

Mind, body, spirit, and emotional aspects will be approached and designed by one of the following methods:

- Group PA teacher collaborates with local community health/social service professional
- Community health/social service professional is certified/qualified to teach/supervise group PA class
- Group PA teacher collaborates with Project OLA consultant

*where possible, both professionals will participate in classes; team teaching may be a consideration

Description of the Intervention Approach

1. Planning – identify specific target group. Organize a focus group of members from the community group to decide upon which movement modality is of interest for the women

and children. Discuss optimal scheduling times/days for highest participation. Strategize how to advertise/implement the classes.

2. Collaboration – physical activity professional collaborates with social service leader who works with that specific population and community group to tweak movement modality classes in a way that are culturally competent for that population. Invite the participation and ongoing partnership of both professionals throughout the duration of the class session in order to facilitate feedback and development along the way.
3. Physical Activity Classes

- Optional Approaches to offer classes
    a. Combined classes for mothers and children
    b. Simultaneous offering of classes, one for women and another for children
    c. Classes for women of reproductive age and mothers with childcare available and some limited integrated parent-child activities

- Rough Outline/Structure of Classes (pending on physical activity modality)
70-80% Physical activity – movement modality (primary)
20-30% Relaxation and somatic experimenting, along with
Casual health coaching/teaching (secondary)
Include components of class that touch upon each aspect: mental, physical, spiritual, and emotional.
Modify, implement, and teach physical activity class structure as needed to work with group.

    a. First and last class of session – pre and post questionnaires that measure top five primary goals/desired health outcomes. Utilize creative, fun, interactive measurement method/tool (i.e. Adhesive Format Thermometer) that functions for low-literacy, cross-cultural groups, but most importantly reinforces the positive health behaviors.
    b. Opening circle - Set the tone/stage for class with brief encouraging talk: i.e., non-competitive, supportive environment, enjoy moving and being in body, have fun, laugh, less in head more in body
    c. End of class – "1-5 Minutes of Relaxation": Utilize modified tools such as visualization, relaxation exercises, meditative breathing, breath connected with movement for integration of movement, connection to health, and begin to increase somatic awareness
    d. Closing circle - Depending on class, offer short, repetitive reminders of 3-4 positive health behaviors that coincide with desired health outcomes for that community population. Reinforce that these healthy behaviors enhance the physical activity so that there is a connection between feeling good in that moment and making changes to feel even better.
    e. Final class of session – plan for a community potluck meal/party/class for participants and their children/families. Integrate ice-breaker activities and culturally appropriate ways to create community. Encourage mindful, healthy food selections to share.

4. Logistics
    a. Attendance rosters at each class
    b. Reminder texts, emails, phone calls within one day of class
    c. Follow-up phone surveys after class session (within 4-6 weeks) to measure retention and continued health behavior changes
    d. Ideally, sequential or ongoing group class sessions will be offered (i.e. Ongoing 6 week sessions available, but each session has a start and finish)

Appendix B
Definitions

The following definitions are taken from the Centers for Disease Control and Prevention (CDC) (2013):

Physical activity – Any bodily movement produced by the contraction of skeletal muscle that increases energy expenditure above a basal level. In these Guidelines, physical activity generally refers to the subset of physical activity that enhances health.

Exercise – A subcategory of physical activity that is planned, structured, repetitive, and purposive in the sense that the improvement or maintenance of one or more components of physical fitness is the objective. "Exercise" and "exercise training" frequently are used interchangeably and generally refer to physical activity performed during leisure time with the primary purpose of improving or maintaining physical fitness, physical performance, or health.

Health – A human condition with physical, social and psychological dimensions, each characterized on a continuum with positive and negative poles. Positive health is associated with a capacity to enjoy life and to withstand challenges; it is not merely the absence of disease. Negative health is associated with illness, and in the extreme, with premature death.

Health-enhancing physical activity - Activity that, when added to baseline activity, produces health benefits. Brisk walking, jumping rope, dancing, playing tennis or soccer, lifting weights, climbing on playground equipment at recess, and doing yoga are all examples of health-enhancing physical activity.

Children – approximate ages 4 to 11

Infants – ages 0 to 3

Teens – ages 12 to 19

Women of reproductive age - ages 15 to 44

Overweight - defined as a BMI at or above the 85th percentile and lower than the 95th percentile for children of the same age and sex.

Obesity - defined as a BMI at or above the 95th percentile for children of the same age and sex.

Appendix C
Project OLA Pilot Program: Data Analysis

First 5 Zumba Community Winter Session 2013 – parents & children participation class
Evaluation of outcomes: Measure knowledge, feelings, and physical activity pre- and post- 6-week session.
57 registered child participants plus one parent per child (mostly mothers/primary caretakers)

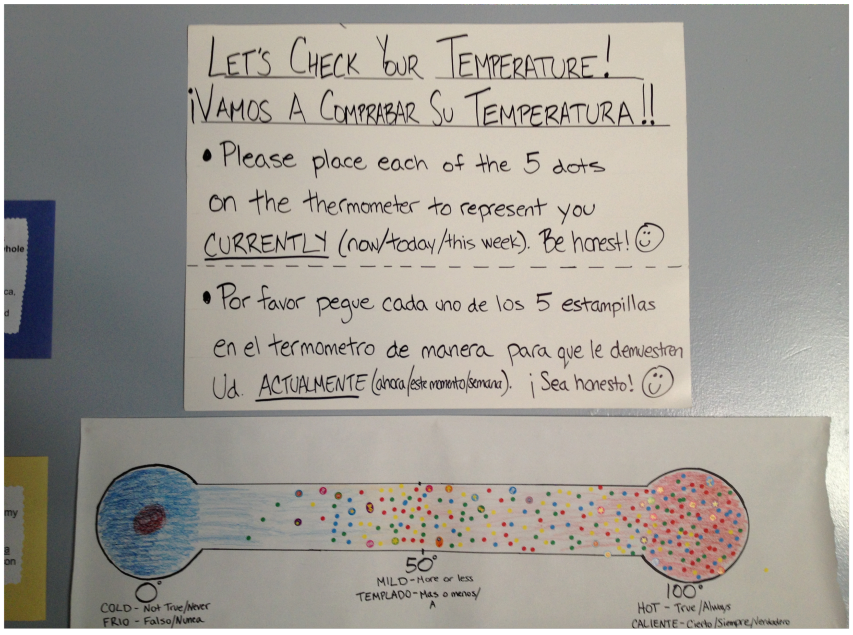
Adhesive Format with Barometer (Paleo, 2012)
Five Goals/Learning Objectives: Increase the following -
1. Knowledge of ways to manage stress for my child and me
2. Sense of connection and community with other families
3. Motivation to choose/eat healthy foods for my family and me
4. Exercise, laugh, and play with child regularly
5. Knowledge that my health is directly connected to my child's health
(* Motivation to continue the healthy changes needed for my own and my child's health)

How do you feel currently prior to workshop? - Versus - How did we do after workshop?

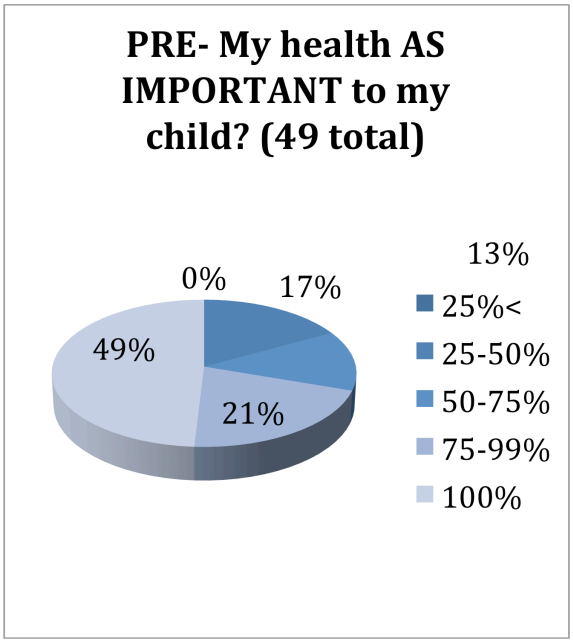
Adhesive Format: Place Dot on a Continuum Scale (large thermometer)
Let's check your temperature!
Please place each of the 5 dots on the thermometer to represent you CURRENTLY (now/today/this week) according to each statement. Be honest!

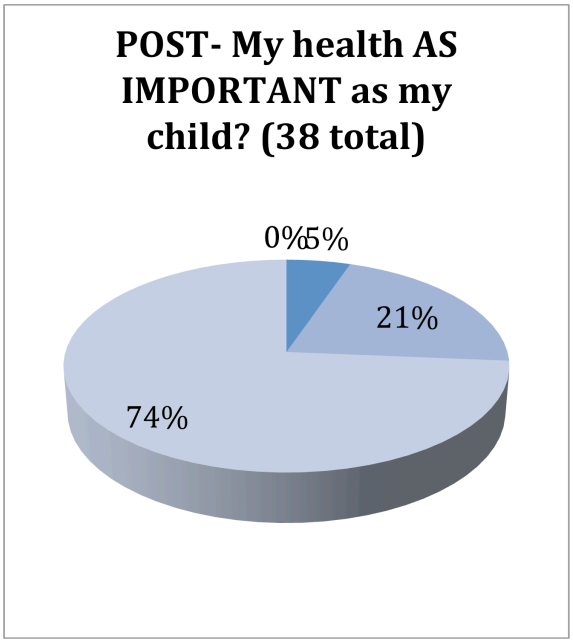
0 ----------50----------100
Cold – Not True/Never Mild – More or Less Hot – True/Always

Pre-Questionnaire & Post-Questionnaire Results



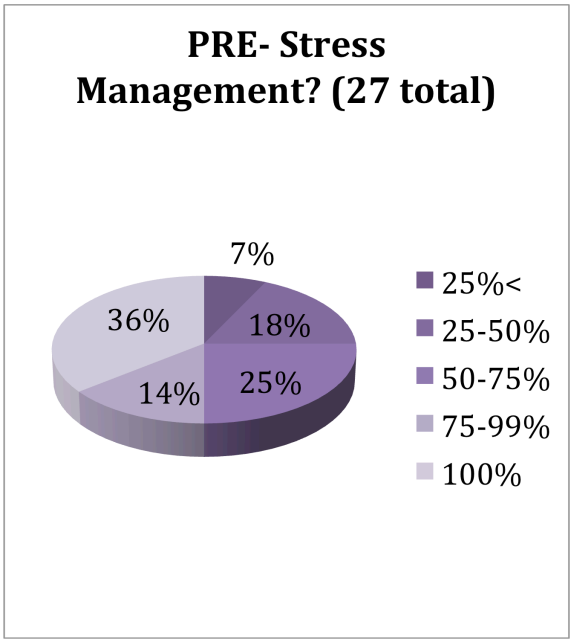
1. I believe that my own mental, physical, and emotional health is <u>AS IMPORTANT</u> as my child's whole health.

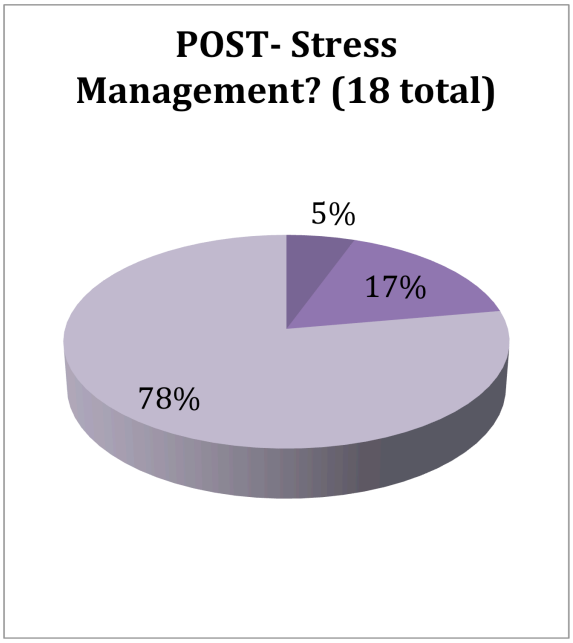




Pre-test showed that 49% of mothers/parents felt confident and sure that their health was as important as their child. Post-test shows positive increase for this learning objective that 74% were totally in agreement with this statement, whereas another 21% were in the 75-100 degree range. This outcome shows that there was an increase in positive attitude and learning as a result of participation in the program.

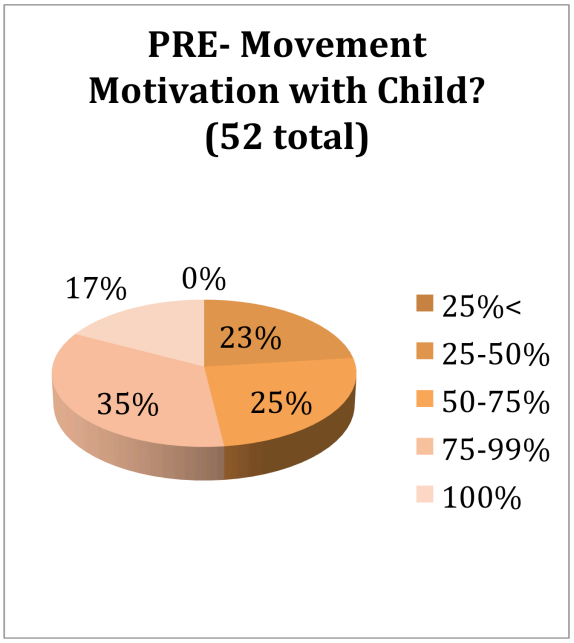
2. I feel confident and able to manage stress in creative, simple, and effective ways.

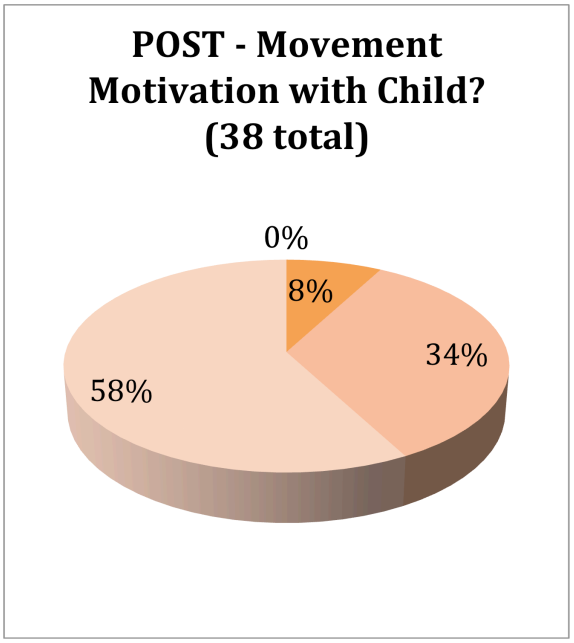




This question had fewer results as the sticker was a different, separate sticker than the other four. It is likely that this caused enough variation that many people forgot to mark their response on the chart. However, with the results, it is clear that there was a significant increase in positive feelings about how to manage stress as an outcome of program participation. Prior to the program, 50% felt very confident or fairly confident in their stress management ability. Following the program, 78% felt in agreement with their ability to manage stress creatively. Interesting to note is that stress management was never specifically discussed with words, only taught experientially with short relaxation and breathing techniques at the end of class.

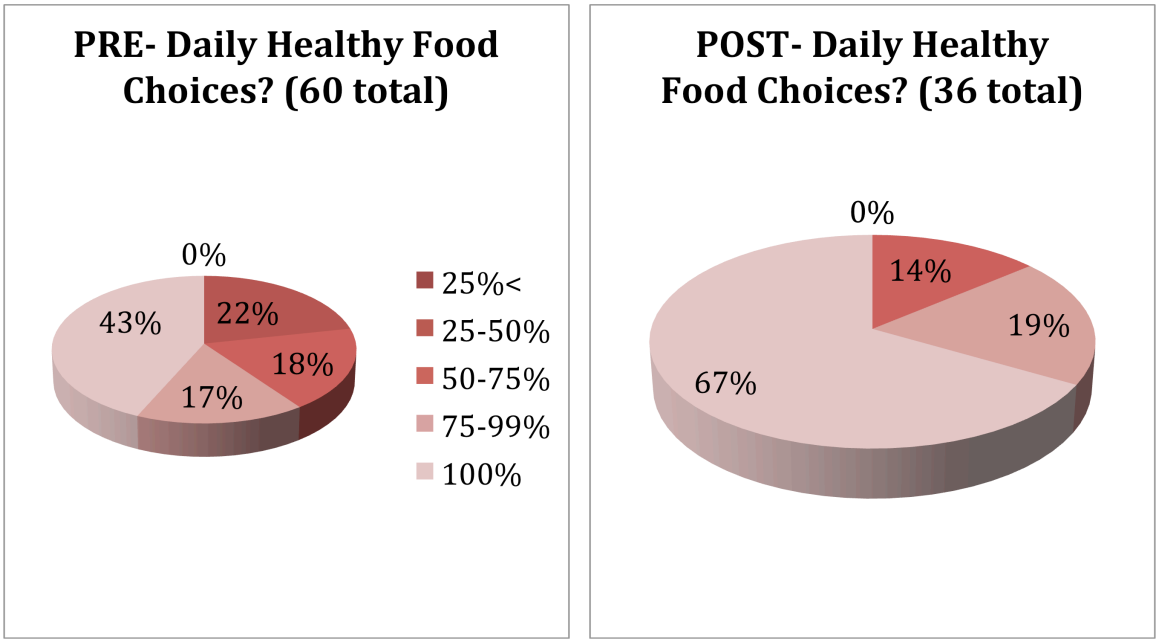
3. I am motivated to frequently dance, play, and exercise with my child.



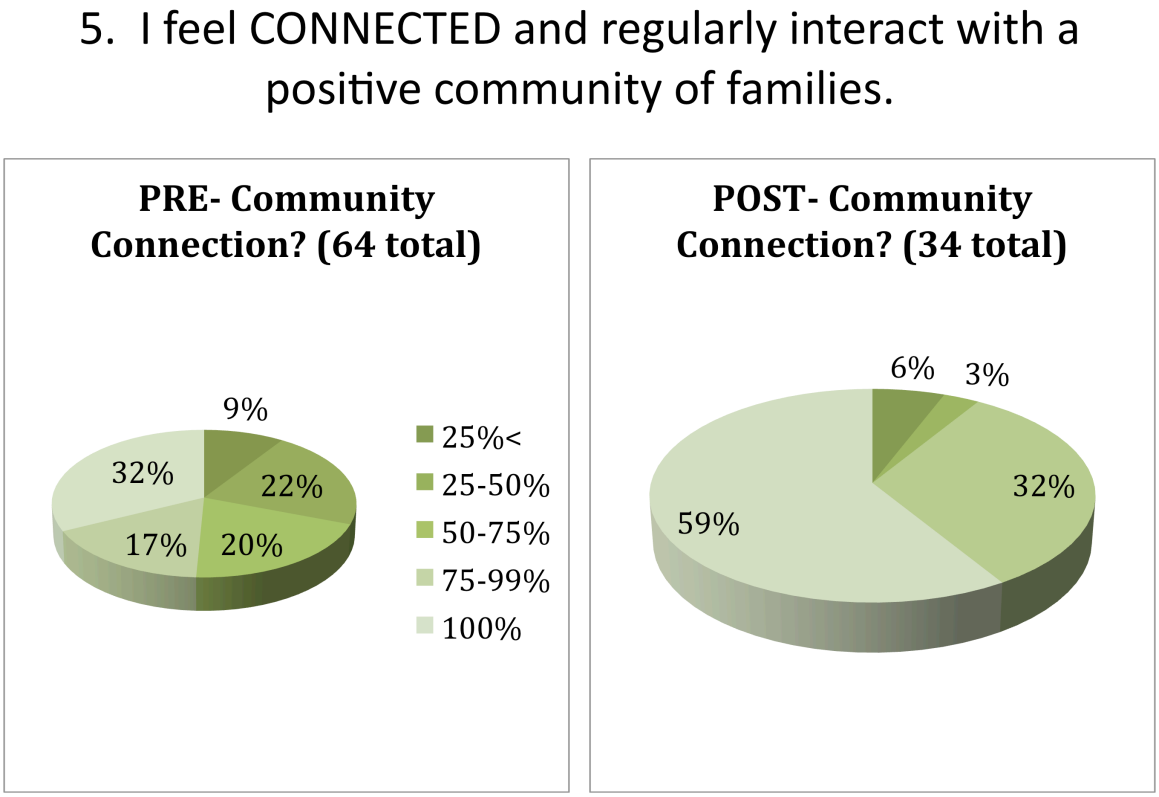


The measurement of motivation towards physical activity pre- and post- the participation in the six week health promotion program shows a significant increase. Pre-questionnaire results were only 17% felt completely motivated to play and exercise with their child, while 35% felt mostly motivated. Post-questionnaire results show that 58% of mothers/primary caretakers were completely motivated to engage in physical activity with their child, and another 34% felt mostly motivated. The classes are based on teaching parents naturally how to have fun while moving their bodies with their children, in addition to teaching children how to feel comfortable and get positive reinforcement for movement. The positive health behavior outcome of increasing motivation for parents/caregivers to exercise shows the benefit of group exercise of mothers with their children.

4. I make **healthy** food choices <u>EVERY DAY</u> for both myself and my child.



Pre-questionnaire reveals that 43% of participants felt in total agreement with the daily healthy food choices statement, and another 17% were in the 75-99 degree range of agreement, with a total of 60% making healthy food choices daily for themselves and their child. Post-questionnaires demonstrate that after program participation the confidence level increased to 67% plus another 19% were mostly in agreement with the statement. The increase from 60% to 80% who positively identified with making healthy food choices shows positive outcomes for healthy food motivation.



Although, participant response to this last question was almost half for the post than the pre, the rate of positive increase in feelings of community connection was significant. Pre-questionnaire results demonstrate about 50% of participants felt connection to a community of families. Post-questionnaire data shows that as a result of the health promotion program, about 90% of participants then felt more connection. As the questionnaires are answered with anonymous dots, it is unclear which participants answered for the pre versus the post. However, it is safe to state that all of the participant responses were mother/parents/primary caretakers who participated in all or most of the classes in the six week session. This would suggest that this goal was successful through this group exercise health promotion program.

Observation Method Results

The last class of the six week session was a combined class (3 classes join) and community Zumba party. The atmosphere and structure is different than the average class because participants are encouraged to bring their families and are invited to also bring food for a potluck. Please note

that the amount of people and the party-like atmosphere does affect results of the observations for this particular report. This is due to the fact that this class is open to family members and friends who had not previously attended any of the classes in the session, in addition to the large quantity of people actually participating in the class.

Observational Data – Last class of session

Ages of kids: 0-8 years, mostly 2-5 year old
Ages of adults: 20's & 30's
Verbal nutrition survey at start of class: Drinking H2o = 50%; Healthy food = 90%

	15 minutes	30 minutes	40 minutes
Engaged in class	Yes	¾ yes	Yes
Engaged in movement	Yes – all kids, most adults	½ yes	Yes
Following Instructor	Yes	½ yes	Yes
Smiling	Yes	Most yes	Yes
Parent/child interaction	Yes	(kid time only) Yes	(Adult time only) Yes

Informal observations during the last class/community Zumba party included the following to deepen the research of the process and outcomes of the Project Ola approach under the Zumba parent/child class format. The observer commented that the small group sharing of time at the initial start of class reinforced positive experience and learning for both parents and children through shared experiences. Throughout the class, it was observed that some parents opted for taking video of their children rather than participating in movement with them. However, this tends to be the exception for the last class of the session only. The observer stated that the instructor is

like the Pied Piper of children so naturally engaging them in fun movement. This is attributed to the way in which the instructor is in midst of the class instead of "up front" leading which creates an encouraging atmosphere for everyone to join in and adds to the "party" feeling. Aside from mothers and women participating with their child, some fathers were even also participating. The time set for the children to have their own song and lead a dance was fun and the kids had a chance to feel important without pressure to perform. The portion of the class for parent time to dance reinforces turn-taking as well as the equal importance of the parent's health. The parents really seemed to enjoy having their own time to dance.

The last song/dance of the class was affirming and good uplifting song to end with. The class size at this particular class event was a little too large for one instructor to encourage full participation the entire time. The post-questionnaire following this last class using stickers and a chart both visually and intellectually reinforced total health awareness and desired positive health behavior outcomes. Interesting to note was that the potluck food, brought by the families, was 85% food not consistent with recommendations in the nutritional education component. Also, concluding the class with a quiet down meditative time, it was observed that a lot of kids were physically on or touching their parents and the energy level of relaxation and joy made it apparent that both parent and child enjoyed the time to quietly connect.

Informal Interviews & Photos/Video

For the purpose of the research data collected during this program, photos and video were taken to capture the essence of what such a group exercise program for young children and mothers with a health education component can actually look like. Obviously, each future implementation of this model will have its own unique flavor. However, it is important that there is visual qualitative data alongside the quantitative data in order to highlight the unique energy and positive health changes that are possible with this type of health promotion approach.

In addition, nothing speaks more clearly than the voices of the participants and how such a health prevention program affects their health and the health of their children. For this study, informal interviews were planned to be taken from a group of participant volunteers. However, due to timing and schedule constraints, it was challenging to get any interviews on record. Instead, a group agreed to be interviewed via telephone within four to six weeks following the end of the session. Recorded interviews will be done at the time of the follow-up surveys. In future pilot programs, such interviews will be built into the evaluation component and research plan.

Attendance Sheets- Participation Data

Out of 57 students registered for the six-week class session, 38 students attended at least five of the classes. That is a 67% participation rate for all or almost all of the classes. Another 13 students attended three to four classes of the series that is a 23% participation rate in at least half of the classes. Considerations for possible lower participation might be that two of the six classes during the session had to be rescheduled to different day/time due to Instructor's conflict of schedule. Additionally, this session was in the winter flu season and many children became sick and were absent. Reminder text messages were the main form of communication for class schedule changes. Reminder phone calls were made to all parents prior to the start of the first class.

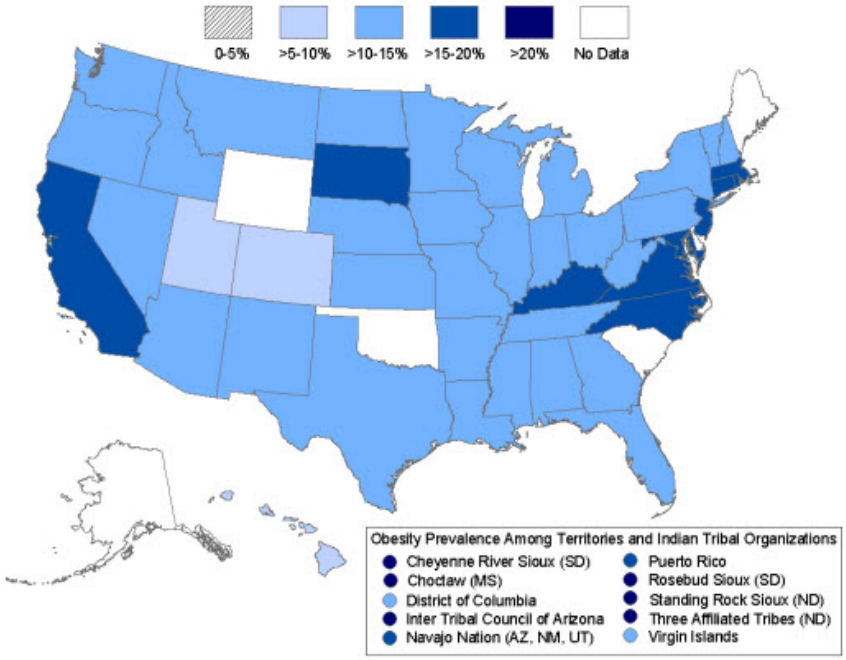
Demographics

According to registration sheets and informal feedback from each class, the majority of students/parents were Spanish-speaking.

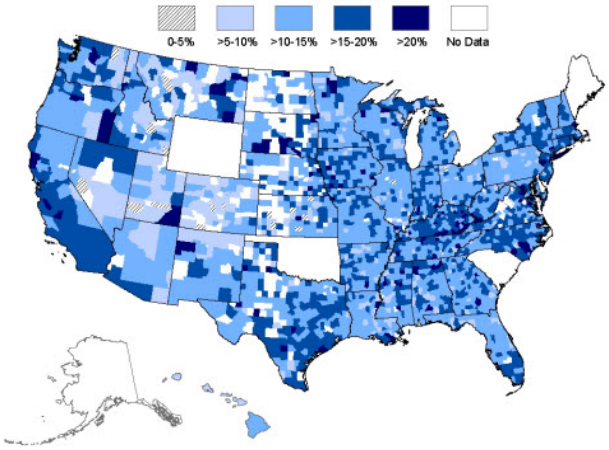
- 95% had text message capabilities on their cell phones.
- 60% had e-mail addresses listed.
- 28% English speaking only
- 24% Bilingual Spanish/English speaking
- 48% Spanish speaking only

Appendix D
Low-Income Children Obesity Prevalence

2011 State Prevalence Among Low-Income Children Aged 2 to 4 Years



2009—2011 County Obesity Prevalence Among Low-Income Children Aged 2 to 4 Years



1. Centers for Disease Control and Prevention. Trends in the Prevalence of Extreme Obesity Among US Preschool-Aged Children Living in Low-Income Families, 1998-2010. JAMA. 2012; 308 (24): 2563-2565

Appendix E
Exemplary Lesson Plan

Lesson Plan Example for two classes of 6-8 week session:

Modality: Zumba & Zumbatomic

Objective: Integrate learning objectives and promotion of desired health behavior education with group physical activity class to facilitate an increase in positive health behavior changes.

Class format: Parent-participation Zumba classes uniquely designed for both the primary caregiver/mother and child (ages 2-5).

Time: 40-45 minutes + 15 minutes free play prior to start of each class

Class One

Positive reinforcement techniques used throughout: high-fives, thumbs up, smiles.

Participants are offered to wear party bead necklaces before start of each class.

I. Introduction
   - A. Create safe space by introducing self
   - B. Familiarize parents with components of noncompetition, parent role modeling, and healthy movement while having fun
   - C. Logistics & Business of space/rules/safety
   - D. Explain teaching is body-based language, listen to music, feel rhythm and sensations, and watch teacher (eyes, ears, body)
   - E. Parent PARTICIPATION class – goal is for all to feel better at end of class then when they arrived

II. Warm-Up Circle
   - A. Stretching movements to active positive music without words
   - B. Warming up body and relaxing mind to feel comfortable moving
   - C. Model child-centered focus

III. Familiar Signature Song
   - A. Introduce a song with movements
   - B. Music usually has lyrics
   - C. Familiarize them with following – relaxed flow
   - D. Optional movements to workout parents while holding children

IV. Game
   - A. Freezedance, Hot Potato, Copycat, or some "game" set to music
   - B. To relax and create playful environment with music and movement

V. Large movement – energy breaker
   - A. Depending on age group of children, some organized movement that incorporates rhythm or movement
   - B. Allows for more spontaneous movement and parent-facilitated (i.e. obstacle course, everywhere drumming, animal crawls, etc.)

VI. Kid time only
   - A. Parents aside, one song for children
   - B. Introduce basic rhythm or movement concepts using shakers, parachute, etc.
   - C. Allow for children to "take stage" on own
   - D. Reinforces turn-taking concepts in child-parent relationship

VII. Mama/Caregiver/Adult time only
   - A. Children sit quietly and get to observe parents dancing

B. Allows opportunity for parents to model willingness to learn something new and potentially difficult for them
C. Teaches the importance of time for child as well as time for self-care

VIII. Group Fun Interaction
A. Facilitates children back with parents, high five/hug reward for sitting
B. Introduce lively song that gets all collectively moving

IX. Closing
A. Thematic song with movements/positive lyrics
B. Popular known song is preferred so they can listen to it at home
C. Lyrics encourage singing
D. Song ends with hugs

X. Relaxation & Breathing Minute
A. Connect movement with breath first
B. Invitation to lie or sit, eyes open or closed
C. Utilization of one of 5 Senses as focus for meditation (i.e. sense of hearing, play ocean waves)
D. Facilitate with probing questions of sensation (What did you hear? How did it make you feel? How does your body feel?

XI. End Ritual/Circle
A. Remind class about healthy nutrition: water, vegetables
B. Encourage daily spontaneous "dance parties" at home
C. Collect necklaces
D. High fives and hand stamps

Follow-up Class
Same format as above with minor changes to reinforce positive health behaviors and learning objectives. Aside from varying the music, changes made to following parts of lesson plan:

I. Introduction
A. Ritual group question/answer and check-in (i.e. "How are you feeling?" Gooood! "I can't hear you….")
B. Positive health behavior reinforcement – raise your hand if you have been drinking more water, dancing more, laughing with mama more, etc.
C. Open circle for comments or questions
D. Community connecting ice-breaker - Optional time for sharing of a statement of gratitude or positive "I am" statement, etc. Pending size of class may be done in smaller groups or in large circle.

II. Relaxation & Breathing Minute – experiential teaching of learning objectives
A. Encourage importance of both mother and child taking time to relax and breathe
B. Utilize another of 5 Senses for meditation focus (i.e. sense of smell, spray essential oil lavender spray in room)
C. Calm music, invitation to lay or sit
D. Time for you – pay attention to your body, how do you feel, anything feel better or different after class, how does smell make you feel

III. End Ritual/Circle
A. Affirm parents role and participation in class, encourage attendance and pay attention to how class might influence child at home
B. Reinforce water for strong muscles, healthy body, and good energy
C. Smile mirror – smile at each student and nonverbally suggest they smile

D. High-fives and hand stamps