



**Using the Incredible Years Parent Program to Help Parents Promote  
Children's Healthy Life Style and Well-Being**

**Carolyn Webster-Stratton, Ph.D.  
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## **Introduction**

Promoting children's healthy life style habits and nutrition should be an integral part of parenting intervention programs designed for young children. The rate of overweight children has doubled in the past two decades with an estimated 23% of United States preschool-aged children reported as being overweight or obese, with higher rates in lower socioeconomic groups (Ogden, Carroll, Kit, & Flegal, 2014). Research indicates that childhood obesity leads to higher risk for other chronic health conditions such as dental caries, asthma, sleep apnea, hypertension, cardiac disease, diabetes, cancer and depression. Furthermore, children with obesity are often bullied, teased and discriminated against more than normal weight peers, leading to social isolation and lower self-esteem. Children with obesity are more likely to be obese as adults, resulting in lifelong physical and mental health problems.

On the other hand, 2016 reports estimated that 13 million children (18%) in the United States experienced hunger and food insecurity, that is, lacking access to sufficient quantity of affordable nutritious food (Service, 2000). However, it should be noted that the majority of people (58%) who are food insecure do not live in poverty and the majority of people who live in poverty (61%) are food secure. Chronic undernourishment regardless of socioeconomic status can have adverse outcomes on children's cognitive development, school performance, language development, and result in higher rates of illness, school absence, and academic underachievement (Hinton, Heimindinger, & Foerster, 1990). The stress of hunger, undernutrition and food insecurity can result in children being irritable, having difficulty concentrating and learning and limit their physical activity. Even skipping breakfast has been shown to adversely affect children's performance in school (Pollitt, 1995).

Refugee children are at high risk for poor health, growth, and development and often arrive in the US with either under or over nutrition. A recent study in Washington State with 1047 refugee children from Somalia, Ira, and Burma were compared with low income children in Washington. Overall, showed that nearly one-half of all refugee children had at least one form of malnutrition (44.9%). Refugee children ages 0-10 years were affected by wasting (17.3%), stunting (20.1%) overweight (7.6%) and obesity (5.9%). Refugee children less than 2 years of age in the US were reported to have higher obesity rates than their low-income non-refugee US counterparts (Dawson-Hahn et al., 2016). After refugees resettle, there is an increasing prevalence of obesity, particularly for older refugee children.

It is well established that parents have a critical influence on the development of positive health habits and childhood development (Golan, 2006). Parents influence the food and physical activities of their children through their own modeling of eating behavior and physical activities, attitudes, parenting styles, and child feeding practices (Birch & Davison, 2001; Moore et al., 1991). Adverse family experiences (AFEs) such as those stressors experienced by refugee families and those living in poverty can negatively impact parenting around feeding and development of healthy life habits (Shonkoff & Garner, 2012). However, despite the large number of evidence-based parenting programs available, very few have measured their outcomes in terms of promoting children's life style changes such as healthy eating patterns, or increased physical activity, or assessed whether these improvements in parenting stress and more positive parenting lead to a reduction in childhood obesity, malnutrition or improvements in physical health, academic potential and overall well-being.

The Incredible Years (IY) Series of prevention and treatment parenting programs (toddler, preschool and school-age) were designed for young children ages 1-12 years. The IY series have had decades of multiple randomized control group trials by the developer and independent investigators from many countries assessing the programs transportability to different cultural groups (Gardner, Montgomery, & Knerr, 2015; Menting, Orobio de Castro, & Matthys, 2013; Webster-Stratton, 2009). Results with selective and indicated interventions for high risk economically disadvantaged families and families that have been referred for abuse and neglect have indicated significant reductions in children's behavior problems and increases in social and emotional skills and school readiness skills according to both parents and teachers reports and observations. Program outcomes also show reduced parent stress, improved positive parent-child relationships, and more positive behavioral management strategies (Gardner et al., 2015; Scott, Briskman, & O'Connor, 2014; Webster-Stratton & Bywater, in press). Of importance is that the parent and child outcomes have not been shown to differ across families with different socioeconomic and ethnic backgrounds (Leijten, Raaijmakers, Orobio de Castro, Ban, & Matthys, 2017). The IY program delivery is non-didactic, trauma-informed, and utilizes a multi-cultural collaborative approach by encouraging parents' own solutions to problems that acknowledge their personal and cultural norms and promotes their connection to cultural identity (Webster-Stratton, 2009, 2012, 2017). The cultural sensitive character of the IY program methods and processes suggests it may be effective for refugee families from different backgrounds although this has not been specifically studied.

Two studies have examined the IY Preschool Program's potential for influencing health outcomes for children. The first study (Brotman et al., 2012) to consider the possible health effects of the Incredible Years (IY) Parent and Child treatment programs followed up 186 minority, at risk preadolescent youth 5-6 years after completing the IY program. The original study goals were to promote effective parenting and prevent behavior problems during early childhood for high risk children but did not focus on physical health outcomes. At follow-up, health outcome measures were collected during a physical exam. Youth who received the treatment had significantly lower rates of obesity, determined by body mass index (BMI) at follow-up compared to controls. There were also significant differences in treatment children's physical and sedentary activity, blood pressure, and diet. This study suggested that effective

parenting and preventing behavior problems early in children's life may contribute to reduction of obesity and health disparities during the preadolescent period.

In a more recent study (Lumeng et al., 2017) Head Start families were randomly assigned to 3 conditions: (1) Head Start (HS) plus Obesity Prevention Series (POPS) plus Incredible Years (IYS); (2) HS+Pops, or (3) HS. The IYS condition consisted of both training in the IY Parent Program as well as the IY Teacher Classroom Management Program. Results indicated that the combined HS+POPS+IYS had improved teacher reports of children's self-regulation compared with HS+POPS and HS, but there was no effect on the prevalence of obesity post intervention for the two combined interventions compared with HS alone. No effect on other outcomes was found except for sugar-sweetened beverage intake which showed a greater decline for the HS+POPS+IYS combined condition than in HS condition. Unfortunately, in this study parent attrition was high, attendance in the parent groups was low, and at this time, no longer term outcomes have been collected.

The findings from these two studies are contradictory in terms of their conclusions about whether the IY intervention is an effective prevention program for promoting healthy behaviors or obesity prevention. Both studies showed intervention effects on the child behavioral outcomes that are typically targets of this intervention: enhanced self-regulation and reductions in conduct problems. This indicates that the intervention was successful at promoting change in some areas. It is interesting that the Brotman study, that was not targeting obesity as an outcome, found these obesity results at follow up, while the Lunmeng study, which added an additional obesity intervention, found no effects on obesity related behaviors. Possible explanations for this may be found in the timing of the measurement point or in the dose of intervention. The Brotman study (Brotman et al., 2012), which offered 22 sessions, had high rates of parent and child participation during the intervention phase and health outcomes were measured 5 years after intervention. If these effects are attributable to the intervention, perhaps parents changed overall parenting behaviors that, overtime, contributed to their children's longer term nutritional health. Although the Lunmeng study targeted this kind of health behavior, parent participation in the intervention was low and the impact on effective parenting behaviors was not measured. The positive child outcomes related to self-regulation may have been a result of the teacher portion of the intervention, rather than the parent intervention. It could be hypothesized that in order for children's health behavior to be impacted, parents would need to make meaningful changes at home. In addition, perhaps the assessment interval, which immediately followed intervention, was too short to show any meaningful outcomes. Further research is clearly needed to assess whether the healthy life style findings in the Brotman study using the Incredible Years Parent and Child programs can be replicated with other families. If the IY parent programs do have longer term healthy life style effects, the mechanisms for these results should be explored and evaluated.

### **IY Focus on Promoting a Healthy Life Style and Child Well-Being**

The IY programs were not developed to be exclusively focused on obesity prevention, nutrition or the importance of exercise, or healthy life style habits. Instead they were designed to be led

in a multi-cultural, collaborative way, with group leaders taking cues from parents about their goals for themselves and their children. Parents come to the groups with a variety of goals for themselves and their children, and there are many etiologies for children's behavior problems including temperament, ADHD or other developmental delays, parenting styles, and traumatic or stressful life events or environments. Discussions in the parenting groups often focus on children's challenging temperaments or traumatic life experiences and how parents can help their children communicate about their feelings and problems as well as how to manage parental emotions and affect, improve their communication and listening skills, and build their family support systems (Webster-Stratton, 2017). When parents bring up concerns about eating habits and health or physical exercise issues, then there are many possibilities for the IY group leader to facilitate discussion of parent strategies to promote children's healthy behavior habits. However, given the serious problem of malnutrition and obesity in youth today, it seems prudent for IY group leaders to be proactive about bringing up these discussions on healthy eating habits and life styles and weave them through the IY parenting sessions, whether or not families have identified nutrition or health care habits as their primary problem. Moreover, improvements in healthy eating and exercise can also contribute to positive mental health and a reduction of behavior problems.

In the program materials, there are a number of ways that the topics of healthy eating and life style can be covered. For example, the program contains video vignettes showing family meal times that can be used to stimulate discussions about healthy eating habits. There are also vignettes about tooth brushing and bedtime routines which can be used to elicit discussions of establishing predictable health habits and rules about the importance of regular dental care and adequate sleep and bedtime routines. Vignettes showing parents playing Frisbee, soccer or biking with their children can be used to promote discussion of the value of increased physical activity. Other vignettes lead to discussions of reduced screen time, predictable meal routines, and household rules regarding healthy food choices and snacks, dental care and appropriate bedtime. Aspects of the IY basic parenting programs that promote children's healthy life style, food habits and obesity prevention and can be highlighted throughout all four parts of the basic toddler, preschool and school age IY parent programs. The remainder of this document outlines some ways that group leaders can integrate healthy life style principles into their parent group discussions. See Table 1 for list of some of the vignettes that can be used to promote healthy life-styles as well as questions that group leaders can ask to stimulate discussion and generation of key principles.

### **IY Program One Part 1: Child-Directed Play Promotes Positive Relationships & Physical Activity.**

This program teaches parents about the importance of child-directed play for building positive parent-child attachment as well as facilitating the child's self-esteem and sense of wellbeing. During this program parents learn about the "modeling" principle; that is that children will imitate what their parents do and that this is a powerful way to teach children healthy behaviors and social interactions. Parents learn about the value of physical play as well as manipulative and exploratory play, social play, and symbolic or pretend play for promoting

children's physical and mental health and ability to problem solve. Parents are encouraged to follow their child's lead in play and do activities their children are interested in in order to promote their positive relationship. While there are many vignettes of parents and children playing with Legos, blocks, playdough, games or puzzles, doing art projects together, or engaging in pretend play, there are also some vignettes showing outside physical activities. It is noteworthy that fathers are targeted as well as mothers for modeling healthy life style habits for there is research evidence showing the positive health benefits for children whose fathers model physical activity and healthy eating habits (Morgan et al., 2011). When showing vignettes in Program 1, Part 1, the group leader can emphasize the importance of child-directed play that involves some physical activities such as playing ball, soccer or Frisbee, going to the park, hiking, and biking together. Group leaders help parents understand how physical exercise can improve their children's fitness, self-esteem and strengthen their cardiovascular system as well as their relationship. The group leader can ask parents questions to prompt parents' understanding and reflection about the importance of physical exercise for their child's physical and mental health.

Some basic principles or key ideas group leaders can help parents to discover in this discussion of the vignettes include:

- *Children need daily physical activity for 20-30 minutes. Special time activities that can promote activity need to be child-led and can include: playing tag or Frisbee, jumping rope, swimming, dancing, playing soccer or taking a walk together.*
- *One of the most powerful ways your children learn to be healthy is by observing you. Therefore, model being physically active yourself and encourage your child to join you. Be involved in making exercise and fitness an integral part of your family's way of life.*

### **IV Program One Part 3: Social and Emotional Coaching Promotes Healthy Eating Habits and Positive Family Meals.**

This program helps parents teach children social skills, emotional literacy, and beginning self-regulation skills. Vignettes include peer and sibling interactions so that parents learn how to prompt and coach social skills such as sharing, trading, taking turns and waiting so that they can make good friends. Emotion coaching is taught to help children learn emotional literacy and how to express their emotions in nonviolent and appropriate ways. Identifying problem feelings and using feeling vocabulary is an important precursor to self-regulation, ability to problem solve and reduction of behavior problems. Clearly child health and wellbeing is influenced by multiple combining factors such as physical, social, behavioral, emotional and environmental ~ all of which can impact on early childhood physical development. Vignettes in this program can be used to continue the discussion about increasing children's physical activity and also include vignettes that can be used to discuss reducing screen time. For vignettes in this program the group leaders help parents understand how these physical activities promote their children's healthy lifestyle habits, social and cooperative interactions, and emotional regulation skills when playing with their peers and family members.

Two principles about screen time that parents may develop from these discussions include:

- *Limit your child's "screen time" (TV, video games, Internet) to no more than 1 hour a day. Avoid screen time for children under 2 years of age.*
- *When your children watch TV, watch with them so you can use this as an opportunity to talk about unhealthy foods being advertised or to discuss good sportsmanship when watching sports and the value of being a good team player both socially and physically.*

Vignettes in Program One Part 3 provide an opportunity for parents to discuss family meal times and the healthy eating patterns that children learn during these times. By asking open-ended questions about food preparation and choices provided by different cultures, mealtime expectations for children, and children's involvement in grocery shopping, the group leader helps parents understand how using these social and emotion coaching methods during mealtimes can promote meals that are a fun relaxed time when children are not forced to eat, or required to have clean plates, but are provided with healthy food choices. Parents will discover that children are more likely to try a new food in a quiet, calm mealtime.

Some possible principles group leaders can help parents discover from these vignettes are:

- *At mealtimes provide plenty of vegetables, fruits and whole grain products; serve reasonable child-sized portions, encourage water drinking and limit sugar-sweetened beverages. Include low fat or non-fat milk or dairy products. Avoid foods high in trans fats and/or saturated fats. Check out the latest published Dietary Guideline recommendations made by major health promotion organizations.*
- *Involve your children in meal preparation so they have some control over this process and you can teach them about healthy food choices.*
- *Providing a calm, reassuring atmosphere at meal and snack times leads to healthy eating and a sense of well-being and happiness.*
- *Provide healthy snacks: for example fruit or vegetables to dip in yogurt or hummus. Avoid continuous snacking, and instead, offer food at predictable meal and snack times. Limit high-fat, high-sugar, or salty snacks.*
- *Have predictable family meals together each day where you have time to talk and enjoy the meal together. Give your children healthy choices of foods to eat.*
- *Make dinner a no screen time for everyone in the family.*
- *Allow children to eat to their own fullness without pressure to overeat.*

## **IV Program Two Part 1: The Art of Effective Praise and Encouragement to Promote Children's Healthy Life Style Habits and Sense of Well-Being**

In this program parents learn about effective ways to praise and encourage their children's positive social and emotional behaviors and promote their healthy lifestyle and food choices. Parents start by making a list of behaviors they want to see more of and learn the importance of both modeling positive social behaviors themselves as well as providing encouragement, labeled praise and positive attention whenever these social behaviors occur in their children. Mealtimes are frequently a source of frustration for parents and too often the child's lack of interest in eating turns into a power struggle. Sometimes parents worry that poor eating habits will lead to illness, malnutrition, weight loss and life-long problems. Or, sometimes parents have worked hard to prepare a nutritious meal and are offended and angry or feel unloved when their children seem ungrateful and won't eat or even try the food. These situations can result in parents pleading, criticizing, threatening or punishing children for not eating. Unfortunately, children may learn that this is a way of controlling, or getting even with, or getting attention from their parents and eating becomes a battle of wills leading to under or over eating or stressful feelings about mealtimes.

By showing vignettes of family mealtimes, group leaders help parents to relax, disengage from the power struggle, and to control their own emotional responses. Group leaders explore with parents why they are worried about their children's nutrition or health, whether there are financial difficulties and whether there is any real danger of malnutrition or overeating, or whether their child's behavior triggers a difficult memory of their own uncomfortable childhood mealtime experiences. The goal is to identify and address barriers to good nutrition and help parents identify and encourage developmentally appropriate mealtime behaviors for their children and provide healthy food choices in order to create a mealtime atmosphere that is calm without negative reactivity, behavior problems or pressure from parents to eat. Parents learn to be realistic about children's appetite variations as well as about how long they can sit at the table, or their ability to control how much children will eat. Through viewing and discussing the vignettes, they learn that parental nagging is actually reinforcing the eating problem. Instead parents use the attention principle to ignore their child's fussiness and misbehavior, while praising and attending to their children's positive meal behaviors. Sometimes children will drag out mealtimes by eating slowly, complaining, and playing with their food. In this case group leaders help parents determine a reasonable amount of time for a child to finish eating and to avoid pleading or nagging if they don't eat. This time-limited approach is especially useful for children who find it hard to remain seated at the table throughout a meal. For picky eaters, parents learn to offer an alternative healthy choice of food that the child likes which gives the child a face-saving way out of conflict. For economic barriers group leaders can link families to local services for Supplemental Nutrition Assistance Program (SNAP or WIC) and coordinate care with community partners.

Several vignettes in this program about tooth brushing and difficulties with teeth flossing also help parents think about how poor dietary habits, especially high sugar foods and poor dental care habits that can lead to painful dental caries. Through discussion of these dental care

vignettes parents learn about using praise and rewards to increase their child's cooperation with teeth flossing and tooth brushing and the importance of developing predictable habits around dental care.

This program also helps parents think about the critical messages that children may be receiving. Parent watch vignettes where other parents are critical of their children's efforts to wash their hands and wash the dishes or the way they are eating. The group leader helps parents think about the impact of critical messages on children's behavior and self-esteem, including behaviors around mealtime manners or eating habits or efforts to help at mealtimes. Parents learn to give positive attention to what their children are doing well at the dinner table rather than give attention to their misbehavior. All of the vignettes about food preparation, hand washing, table manners and table clean up are shown with a goal to make food and eating times a fun, cooperative time for everyone. The social and emotional coaching methods that the parents learn help to scaffold this as a happy time together.

Two principles that a group leader can help parents discover with these vignettes include:

- *Set up predictable routines to encourage healthy habits such as washing hands before meals, helping with dinner serving and cleaning up, and brushing and flossing teeth after eating. Provide praise and support as your children are learning these habits.*
- *Ignore mealtime behaviors that are irritating such as messing with food, using fingers to eat, complaining about the taste or refusing to try a new food, and focus on praising what children are doing well, or praising other family members' positive table manners.*

## **IY Program Two Part 2: Motivating Children through Non-food Incentives.**

In this program parents learn about rewarding and motivating children for learning particularly difficult target behaviors such as going to bed at set time and staying in bed at night, flossing teeth, doing homework, getting dressed on time for school, staying by the grocery cart in the store, not interrupting parent while on the phone, taking a bath and toilet training. Parents are encouraged to reward children with nonfood related items such as special stickers, time playing a game or reading together, or going to the park, watching a special movie, or having a special friend overnight. When food is used as a reward, the parent offers choices that involve healthy foods, not junk food such as salted chips, soft drinks or candy. Some parents whose goals are to manage dinner time behavior problems are helped to set up a tangible reward system for specific behaviors such as staying in their dinner seat until the timer rings, talking quietly or finishing eating before the timer rings. It is most effective to reward dinner behaviors *other than eating*. Removing the focus from eating emphasizes that food is not a source of conflict between the parent and child, so that what goes in the child's mouth is his or her own choice, as long as healthy food options are provided.

Some vignettes in this unit show parents offering food as a reward. In some cases, candy is offered and in other cases fruit is the reward. The group leader asks the parents for their



thoughts about using candy as a reward and facilitates a discussion about potential dental problems and obesity if sweets are used frequently. Parents are helped to understand that sugar causes dental decay and that it can be almost addictive, decreasing children's interest in other more nutritious but less exciting foods such as fruits and vegetables. For this discussion the parents are encouraged to explore different healthy options for a food reward, or other types of rewards such as parent play time with parents.

One principle that a group leader can help parents discover with these vignettes includes:

- *Avoid using high sugar or salty snacks and sweetened beverages for use as rewards. When possible use non-food rewards such as positive time with parents.*

### **IY Program Three Part 1 and 2: Establishing Routines, Household Rules and Effective Limit Setting to Promote Healthy Life Style Habits.**

In these two programs parents learn about establishing predictable routines and household rules around family meals and mealtime behavior, TV or screen time, bed time, household chores, morning routines, wearing a helmet, as well as rules for what foods are healthy to eat and what foods are not healthy. The vignettes in this program provide a chance to reinforce themes that have come up in earlier discussions around routines and help families to articulate rules that support a healthy life-style. Parents learn to be thoughtful and positive about the commands that they give their children, and they spend time rewriting their negative commands into positive commands that describe the behavior they want to see rather than the behavior they don't want to see. They practice giving clear, positive and respectful commands. Group leaders help parents know how to follow through with the command and rules.

One principle that a group leader can help parents discover with these vignettes includes:

- *Consistent and clear rules and routines help children feel safe, secure and loved by their children as well as learn a healthy life style.*

### **IY Program Four Part 1 and 2: Follow Through with Commands and Ignoring Children's Inappropriate Responses**

In Program Three parents have established their household rules and routines and have limited their commands to those that are most important and learned to give them in clear, polite ways. Parents learn about the importance of follow through with household rules and commands in order to promote healthy behaviors and wellbeing. Naturally children will attempt to argue about the rule or test the command, or try to talk their parent out of the rule or throw a tantrum to see if they can get what they want. This is quite normal, especially if commands have been inconsistently enforced in the past. During Program Four Parts 1 and 2, parents learn how to ignore misbehavior at mealtimes and give attention for healthy lifestyle habits and ways to build their self-esteem. Parents are encouraged not to lecture or provide a rationale when children dysregulate about the limit being set but to stay calm and avoid giving

this misbehavior their attention. Vignettes in this unit show children pushing limits by arguing, tantruming, fussing, or asking for something that they can't have. The vignettes show parents responding in effective and ineffective ways as they try to set limits around household rules in order to elicit discussion of key behavior management strategies. Parents learn to ignore attention seeking behavior and follow through consistently with rules and limits. Group leaders talk with parents how to stay calm when using the ignoring strategy.

A principle that a group leader can help parents discover with these vignettes include:

- *Children learn from the attention they get for their behaviors. Therefore more positive attention should be given for healthy life style behavior than unhealthy behavior. Even negative attention is reinforcing.*

### **Group Mealtimes**

While parents are participating in these parenting groups, many agencies provide dinners for the whole family before the group begins. It is important that families are provided with healthy food choices such as fruits and vegetables so that group leaders are modeling the very dietary habits that they want the parents to use. Also during these meals, group leaders can model and coach parenting skills that support children's healthy eating habits. Parents can be supported to coach and praise their children's healthy choices during the meal. Essentially the dinner times can be an opportunity for parents to practice the skills they are learning in the parenting groups and receive positive feedback from the group leaders.

### **Summary**

The IY Parent Program delivery is based on an approach that is not didactic or prescriptive but rather a collaborative, training process that is active or experiential, self-reflective and built on a reciprocal relationship that utilizes equally the group leader's knowledge and the parent's knowledge, strengths and cultural perspectives. Collaboration implies that parents actively participate in goals for themselves and their children that includes making lists of target behaviors they want to increase or decrease. Some parents may have goals related to reducing mealtime behavior problems or problem food choices while others may be concerned about their children's defiance, sleep problems, TV or screen time addiction, toilet training or tooth brushing issues, fears and anxiety, hyperactivity or dawdling. This document and the table provide some examples of open-ended questions the group leader can use when mediating video vignettes to encourage parents' ideas, reflections and problem solving about life style habits. The group leader listens reflectively, and affirms positive steps parents have taken to understand and make changes. From the parents' discussions the group leader pulls out key "principles" of behavior management, relationship building and ways to promote healthy lifestyle habits and a child's sense of wellbeing. This collaborative group training approach has been shown to be more likely to increase parent's confidence and self-efficacy in regard to their belief they can change their own and their children's behaviors than a didactic teaching approach. Moreover, the group discussions allow parents to share and problem-solve with

each other which serves as a powerful source of support as they realize they are not alone with their problems and that many of their parenting problems are typical, regardless of their cultural background.

The collaborative approach allows for group leaders to “tailor” the program to the specific goals of the parents as well as to the particular family cultural backgrounds and experiences as well as the particular developmental stage and temperament of the child. Once parents learn the “principles” of behavior management in the Incredible Years Program the group leader helps them apply these principles to their specific goals be it promoting their children’s healthy eating or sleep habits, or table manners, or physical activities, or reducing sibling rivalry and aggressive behavior. There have been many randomized control group studies showing the effects of the IY program in terms of promoting positive parenting and attachment relationships, strengthening children’s social competence and emotional regulation and reducing behavior problems. However, there has been very little research assessing the impact of this program for promoting healthy eating and exercise lifestyle habits, and preventing obesity or malnutrition.

The purpose of this paper was to highlight some of the vignettes in the Incredible Years Preschool Program that are relevant for stimulating discussions about healthy life style habits and obesity prevention. A similar approach can be taken with the IY Toddler and School Age programs. These discussions relate to the goals of helping parents encourage children’s healthy eating of fruits and vegetables, reducing sugar-sweetened beverages and high fat or high sugar snacks, reducing screen time, developing predictable dental care routines, increasing physical activity and promoting children’s involvement in food planning, shopping and preparing meals and having relaxed and fun family meals. The vignettes and questions listed in Table 1 can be helpful in promoting these discussions. However, the overall program effectiveness will depend on the group leaders’ ability to weave these health-related discussions into broader discussions about all the other social, emotional, and behavioral content that is outlined in the leader manual, and to overall, be responsive and respectful of the goals and cultural norms of parents in the group. These discussions about healthy eating and healthy life style habits are one small part of a more comprehensive goal to help reduce family stress, build support systems and develop stronger parent relationships with their children in order to promote children’s self-esteem and sense of wellbeing, to learn how to use more positive and effective parent management strategies, and to manage misbehavior in a consistent and calm way. These parenting skills are foundational to children’s emotional and behavioral outcomes.

Interestingly, it has been theorized that parents’ poor emotional and behavioral regulation, negativity, and failure to set limits on children’s screen time is linked to obesity risk, so it could be theorized that the IY program’s effects in promoting more effective parenting and reducing behavior problems may have an ancillary effect for reducing obesity in later years and promoting lifelong health and wellbeing (Anzman-Frasca, Stifter, & Birch, 2012; Thamocharan, Lange, Zale, Huffhines, & Fields, 2013). Additionally, family stress due to poverty and adverse life experiences may negatively impact parenting around feeding and create food insecurity on the part of children. Helping parents develop positive support networks, reduce stress and

manage life stressors may be the key change agent for them to make positive parenting and life style changes. Nonetheless, there are multiple risk factors within the poverty pathway and additional economic solutions are also needed in order for low-income and refugee families to have access to inexpensive healthy food. Further research is clearly needed to assess the effects of Incredible Years parent programs on children's longer term healthy life style effects and the mechanisms involved in bringing about change. While child health and wellbeing is clearly influenced by multiple social, emotional and cultural factors, the potential to influence future child healthy lifestyles as well as social, emotional and academic outcomes via early intervention parent programs is clearly needed.

## **Refrigerator Notes About Promoting a Healthy Lifestyle**

- Help your children understand the health benefits of being physically active every day. During child directed play, offer options of playing tag or Frisbee, jumping rope, swimming, dancing, playing soccer, biking or taking a walk to the park with you.
- Avoid making comments about weight (your own or your child's). Instead, use language that focuses on healthy choices and strong bodies that allow you to be active (walk, play, climb, dance, etc.).
- Limit your child's total screen time to no more than 1 hour a day. Avoid screen time for children under 2 years of age.
- Provide healthy snacks: for example fruit or vegetables to dip in yogurt or hummus. Avoid continuous snacking, and instead, offer food at predictable meal and snack times. Limit high-fat, high-sugar, or salty snacks.
- In the context of otherwise healthy eating, offer moderate amounts of "treat" foods to help children learn to regulate their intake of sweets.
- At mealtimes provide a variety of health foods; fruits and vegetables, whole grains, lean meats; avoid foods high in trans fats and/or saturated fats.
- Allow your child to serve him/herself. Do not require children to clean their plates and do allow them to have more of anything healthy that is being served. This will help them learn to pay attention to their own hunger signals.
- Do not put your child on a weight reduction diet unless your physician supervises. For most young children, the focus is maintaining current weight, while growing in height.
- Offer children water or low/non-fat milk. Limit soda and juice intake.
- Have predictable family meals together where you have time to talk and enjoy the meal together. Establish dinner as a "no screen" time.
- Involve children in food planning, shopping, and meals preparation.
- Check that your child care providers are encouraging healthy eating and limiting junk food.
- One of the most powerful ways your children learn to be healthy is by observing you. Therefore, model being physically active, buy and eat healthy foods, express your enjoyment of food and family meals, and model positive talk about your family's healthy bodies.

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Vignette Number	Description of Vignette	Sample Questions to Promote Health Behaviors
Program 1 Part 1	<b>Child-Directed Play Promotes Positive Relationships &amp; Physical Activity</b>	What is the value of doing physical activity with your child? Does your child understand the importance of physical exercise? What are you modeling for your child when you engage in physical activities yourself?
25	Father and son playing Frisbee	Why is this important? How often do your children do a physical activity in a day or a week? What is the ratio of your child's physical activities versus his or her sedentary activity?"
26	Mother and daughters dancing outside	How much time do your children spend watching TV?" How much time do you watch TV?"
Program 1 Part 3	<b>Social and Emotional Coaching Promotes Healthy Eating Habits and Positive Family Meals</b>	Is your child involved in any physical team sports?" How can you promote more physical activities in your child's regular routine?
5	Father with children outside on bicycles	
8	Mother playing video game with daughter	
9	Children playing ball outside with parents	
12	Children building fort in living room with dad	
20	Playing ball	
14	Family breakfast preparation	What is the value of having children involved in meal preparation? What do children learn about healthy eating and food choices when they cook or shop with you?
15	Family breakfast preparation	What healthy food choices do you provide at meal times? How much time do you have for breakfasts?
17	Grocery shopping	How can you involve your children in making healthy food choices? When the boy in the video vignettes wanted a snack, what does he learn when his mother offers him blueberries for his snack?
18	Cooking with parents	How do you manage snack time at your house? What is the value of offering a regular snack time? How can you promote healthy mealtime habits? Why are children more likely to try a new food in a quiet, calm setting?
19	Cooking with parents	How much sugar does your child have each day? How might you set limits on when these children can have the cookies they are making in this vignette?

Program 1, Part 1	<p><b>Praise and Encouragement to Promote Children's Healthy Life Style Habits and Sense of Well Being</b></p>	
1	3 year old leaving table to go to the bathroom	What routines to you have around mealtimes?
2	Helping with dinner prep	Why was it necessary for this father to supervise his son's handwashing?
3	Dinner conversation	How long to you expect a 3-year old to sit at the table for dinner?
5	Washing hands before dinner	A 5-year old?
7	Teeth flossing	What behaviors do you praise at dinner time?
12	Parents critical of hand washing	What do you teach your children about teeth brushing and flossing?
13	Parents critical	When do your children brush their teeth each day?
14	Parents critical of child washing dishes	Do your children know what foods make their teeth decay?
22	Child complains about dinner	How do you coach, praise and supervise children when brushing their teeth?
24	Eating with fingers, then using napkin	
31	Setting table	
Program 2, Part 2	<p><b>Motivating Children through Non food Incentives</b></p>	
4	Offering candy as a reward	Why do parents often offer candy as a reward?
6	Raisins and stickers as a reward	What are the disadvantages of offering candy as a reward?
7	Raisins and stickers are a reward	What are children learning if candy is a frequent reward?
9	Nonfood reward for teeth flossing	What are some alternatives to candy as a reward?
17a	Blueberries as a reward	Can healthy foods be rewarding for children?
Program 3	<p><b>Establishing Routines, Household Rules and Effective Limit Setting to Promote Healthy Life Style Habits</b></p>	
Part 1	Setting table routine	Do you offer your children opportunities for your children to help at dinner time? What is the value of this?
8	Clearing table routine	What dinner behaviors should be given attention and which ones can be ignored?
8	Dinner time	Why is it important to offer food choices rather than give commands?
9	Dinner time	What are your goals for meals?

			<p>How can you set up mealtimes to encourage healthy eating and food choices?</p> <p>When should you set limits on mealtime behavior?</p> <p>Why does the mother in the vignette want to teach her daughter to sit longer at the meal?</p> <p>What else might she do to foster her meal involvement?</p> <p>Do you think children should have to sit at the table until everyone is finished eating?</p> <p>What rules do you have about the amount screen time your children have?</p> <p>How can you model healthy use of screen time?</p> <p>What other activities can your children engage in besides screen time?</p> <p>What other rules do you have about TV?</p> <p>Do you limit particular programs?</p> <p>Do you have the TV on during meals?</p> <p>What rules do you have about I-pad or computer use?</p> <p>How can you be involved with their screen time learning?</p> <p>Do your children have computers or TV in their bedrooms?</p>
	17	Mom watching TV	
	20	Vague command to come to dinner	
	29	Command to turn off TV	
Program 4	<b>Follow Through with Commands and Ignoring Children's Inappropriate Responses</b>		
Part 1	1	Tantruming girl wants to eat	
	2	Tantruming girl wants to eat	
	9	Girls want cupcakes	
Part 2	6	Boy wants cookie before dinner	
	8	Arguing for candy	
	9	Annoying dinner behavior	
	12	Cookie before dinner	
			<p>What is the problem with a parent giving in to the child's protests and arguments?</p> <p>What behavior is the mother reinforcing when she gives in to protests or continues to argue?"</p> <p>What is the boy in the vignette learning?"</p> <p>What healthy snack could the mother offer instead?"</p> <p>What are the long-term advantages of continuing to ignore even if it is hard to listen to whining??"</p> <p>How might you distract a child after ignoring the protests?</p>