Promoting Children's Health in the Home Environment: A Parent/Guardian Handbook

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Promoting children’s health in the home environment: A parent/guardian handbook

by

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A Scholarly Project
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of the
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Master’s of Occupational Therapy

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This Scholarly Project Paper, submitted by Shannon Troje, MOTS and Stacie Voth, MOTS in partial fulfillment of the requirement for the Degree of Master’s of Occupational Therapy from the University of North Dakota, has been read by the Faculty Advisor under whom the work has been done and is hereby approved.

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ABSTRACT

The World Health Organization (2003) stated that “obesity is a global epidemic”. The United States (U.S.) in particular has a statistically significant higher rate of obesity in children. According to the American Academy of Pediatrics (2003), 15.3% of children between the ages of 6 and 11 years old are obese as a result of unhealthy habits and routines. Because these habits and routines often begin in the home environment, health promotion activities should involve parents/guardians (Manios, Kafatos, & Mamalakis, 1998).

At this time there are few resources available for parents/guardians and their children to promote wellness in the home environment. Parents/Guardians of 1st graders are targeted because research indicates that “life-long habits have their roots in early childhood,” (Manios, Kafatos, & Mamalakis, 1998, p. 604). The purpose of this scholarly project is to promote healthy habits and routines for first graders and their parents/guardians in their home environment that will continue with them throughout their lifespan.

This scholarly project utilized a literature review to examine childhood obesity and determine the effectiveness of health promotion programs for children. The students utilized the Occupational Adaptation Model to guide the development of a parent/guardian handbook to promote healthy habits and routines in the home environment. The handbook provides activities and educational resources for parents/guardians to use when promoting healthy habits and routines in their 1st grade children.
CHAPTER 1
INTRODUCTION

The purpose of this scholarly project is to promote healthy habits and routines for first graders that will continue with them throughout adulthood. This scholarly project will present a parent handbook, which will incorporate meaningful occupations to promote healthy eating and exercising habits. It is important to promote healthy habits and routines in the home environment with the help of the parental influence on the younger children.

Because the rate of obesity is increasing in children throughout the world, the problem needs to be addressed worldwide. The World Health Organization (2003) stated that “obesity is a global epidemic”. The United States (U.S.) in particular has a statistically significant higher rate of obesity in children. According to the American Academy of Pediatrics (2003), 15.3% of children between the ages of 6 and 11 years old are obese. That means that the percentage of children who are overweight or obese has more than doubled since the 1970’s in the U.S. (Mayo Foundation, 2006).

Children who are overweight or obese face social, physical, and psychological challenges. They may not be able to keep up with their friends, run as fast, breath as well, or have as high of a self esteem as their peers. They may tire easily, may not be able to wear the latest fashions, be as comfortable with their body, and may be the target of teasing. Geier, Foster, Womble, McLaughlin, Borradaile, Nachmani, Sherman, Kumanyika, and Shults (2007) found that overweight children miss more school days than their normal weight peers.
Being overweight or obese is also associated with several health problems. Obesity is often linked with multiple health concerns such as diabetes, hypertension, hyperlipidemia, osteoarthritis, and asthma (Center for Disease Control & Prevention, 2006). The Center for Disease Control and Prevention, (2006) estimated that one in every three children born in US in the year 2000 will develop diabetes.

With childhood obesity affecting one in every five children in the United States (Dietz, 1998), many health professionals have developed programs to decrease this epidemic. "The dramatic rise in obesity prevalence among children of all ages, race/ethnicities, and socioeconomic backgrounds suggests that population-based preventive strategies are urgently needed to counter current trends and ensure that our nation’s youths are not plagued by premature chronic health problems" (Schmitz & Jeffery, 2000 as cited in Phillips, Bandini, Naumova, Colclough, Dietz, & Must, 2004. p.461).

In order to decrease incidence of obesity and diabetes, many elementary schools have started to address this concern by offering wellness programs in schools. However, there is limited carry over into the home environment. Carrle, Clark, Peterson, Eickhoff, and Allen (2007) conducted a study that examined the effects of a physical activity program in schools and the carry over into the 3-month summer break. This physical education program had positive effects on one’s body fat index, fasting glucose levels, and cardiovascular fitness compared to a standard physical education class. They found that all of these positive results were lost over the summer break and concluded that the intervention is successful but would only work if a physical activity program was implemented year around. This study shows a need for parent education and a program that could be implemented throughout the year including the summer break.
The family has a high influence on a child’s eating and exercise habits (Manios, Kafatos, & Mamalakis, 1998). At this time there are few resources available for parents and their children to promote wellness in the home environment. Parents of 1st graders will be targeted because research indicates that “life-long habits have their roots in early childhood,” (Manios, Kafatos, & Mamalakis, 1998, p. 604).

While research has identified a need for parent programs to improve health in children, limited resources are available for these programs. The parent handbook developed for this scholarly project provides nutritional and physical activity ideas to incorporate into the family’s daily routine. This handbook contains fun health promotional activities that the family can engage in with their child. Educational materials are also included to teach appropriate servings sizes, nutritional education, and physical activity recommendations.

While the term health promotion is utilized often in research, the term wellness is also utilized. The two terms are similar, yet different. The term wellness is described in seven aspects; the seven aspects are emotional wellness, intellectual wellness, physical wellness, environmental wellness, social wellness, occupational wellness, and spiritual wellness (Maricopa Community Colleges, 2004). Emotional wellness encompasses the feelings that one has about their self, their interactions, and their environment. Intellectual wellness involves learning and exploring the world around you and learning about yourself. Environmental wellness is involves the environment around you and how you feel about your surroundings. Social wellness is the relationships that one has with others in their surroundings. Occupational wellness involves one’s occupational and work environment. This includes fostering occupational relationships and learning how to deal with stress in the workplace. Spiritual wellness is one’s connecting with a higher power or belief system. The last aspect of wellness is physical wellness. Physical
wellness is the “ability to maintain a healthy quality of life that allows us to get through our daily activities without undue fatigue or physical stress” (Maricopa Community Colleges, 2004). This scholarly project will focus on physical wellness and health promotion which is one of the aspects of wellness in order to deliver a thorough resource that addresses the physical concerns of children’s health. Since the physical health of children has been identified as a significant concern in the US, this scholarly project will focus on health promotion verses overall wellness.

According to the World Health Organization (1986, ¶ 1) health promotion “is the process of enabling people to increase control over and to improve their health”. It is important to develop healthy habits and routines at a young age so that the children have the basic skills required to advance developmentally in all wellness aspects. At a first grade level, children are not developmentally ready to understand and fully comprehend all of the aspects of wellness. According to Piaget’s Cognitive Stages, first grade children are transitioning from preoperational thinking to concrete thinking. It is difficult for children to use abstract thought at this stage (Sandwell, 1995). Some of the aspects of wellness such as the spiritual and emotional wellness are difficult to explain to children because there is nothing that the child can physically touch or see. Therefore, this scholarly project will just address the physical aspect of wellness. With the help from their parents, children will learn how to live a healthy lifestyle that incorporates healthy nutritional choices and physical activity.

This scholarly project is developed with the use of current occupational therapy practices and models. The American Occupational Therapy Association (AOTA) Board Task Force on health and wellness described the role of OT in relation to health promotion.

“Occupational therapy has the opportunity to take a leadership role in health promotion and disease prevention. Given the philosophical foundation and client-centered,
occupation-based approaches that have been developed in the field; OT is now poised to be an important participant in health and wellness programs. Occupational therapy’s emphasis on persons, environments, and occupations provide a distinct contribution to public health goals and strategies” (American Occupational Therapy Association, 2006 p.3).

According to the American Occupational Therapy Association (2002), occupational therapists (OTs) follow the OT practice framework in order to increase client therapist relationship and the overall service delivery process. This framework addresses evaluation, intervention, and outcomes. Occupational therapists conduct initial evaluations where they complete an occupational profile on the client. The occupational profile consists of understanding the client and their occupational history. The areas included in the occupational profile are their activities of daily living they participate in, their interests, values, and needs. Lastly, the occupational profile addresses the client’s problems that they are having in their occupations. At this time a therapist will collaborate with the client to discuss the client’s needs and wants in relation to their occupational problems. The next piece of the evaluation process is looking at the client’s performance in their occupations. This allows the client and therapist to see what is working well and what is limiting their performance in terms of their skills, patterns, and context.

The next step in the OT Practice Framework is the intervention. The intervention involves the plan, implementation of the plan, and review of the plan. Occupational therapists provide effective interventions that are specialized to each person’s needs. They can adapt the programs from the school into the home environment based on a need for a structured health promotion plan. Occupational therapists are knowledgeable in several areas including one’s
physical, psychosocial, cultural, and environmental factors. They develop effective interventions while taking into account the client’s skills, abilities, context, and occupations. OT’s are able to provide client centered interventions that meet the specific abilities and needs of their clients. Occupational therapists can assist people in developing healthy lifestyle choices and promote engagement in physical activities that are meaningful and enjoyable for that client (American Occupational Therapy Association, 2002).

The last step in the OT practice framework is the outcome. The outcome involves assessing the interventions to determine whether or not they support or hinder participation (American Occupational Therapy Association, 2002). At this time the therapist may evaluate the program to see if any changes are needed to promote performance in their occupations.

This scholarly project will use the OT practice framework in order to plan and develop the handbook by first evaluating, developing interventions, and lastly determining the outcome. Through the use of the literature review this scholarly project will be able to evaluate the need for first grade children to have interventions that will promote healthy lifestyle habits and routines.

The parent handbook will be the intervention of choice for this scholarly project. The intervention should be meaningful in order to increase motivation and follow through. If a child does not like to do a particular activity they are less apt to engage in that activity. Heshka, Anderson, Atkinson, Greenway, Hill, Phinney, Kolotkin, Miller-Kovach, and Pi-Sunyer (2003) found that people had better results in loosing and maintaining a healthy weight when they were assisted through the process with the use of a structured program rather than trying to lose weight on their own. This scholarly project will assist children and their parents in finding activities that they enjoy participating in.
Children will learn how to take care of their bodies through education, interventions, and strategies. This scholarly project will develop interventions that will allow for the children and their parents to develop strategies that will work for them in order to develop healthy habits and routines. Through the use of the parent handbook the outcome will be for first graders to have healthier eating and physical activity habits that they will continue to use into adulthood.

The Occupational Adaptation (OA) model will guide the development of this parental handbook. OA is one of several models that are used in occupational therapy. According to Schkade and McClung (2001), Occupational Adaptation is a “normative process” in which a person desires to achieve relative mastery in their occupation of choice. In Occupational Adaptation, the therapist “facilitates the development of the person’s internal adaptive response process, in order to improve the client’s occupational functioning and to positively their health and well being” (Schkade & McClung, 2001; Schultz & Schkade, 1997 as cited in Bouteloup & Beltran, 2007, p.234).

The Occupational Adaptation model focuses on the person, the environment, and the interaction of the person in their occupational environment. The person involves the cognitive, sensorimotor, and psychosocial systems. The environment is the context in which the occupation is performed (Schultz & Schkade, 2001).

Occupational Adaptation encourages the client to identify ways in which they can adapt, using their internal adaptation process. The client already has the skills and abilities to facilitate change, although they may be unable to recognize these qualities they possess. The parent handbook will follow this model and provide targeted questions and resources to help guide the client in healthy decision-making. The client’s engagement in healthy decision-making shows occupational readiness, which is the first piece of intervention that is used in OA. Occupational
readiness addresses the skill development and prepares them for engagement in that occupation. The parents and children will be responsible for carrying out the interventions and adapting to their environment. Determining their own interventions or occupational activities will allow them to focus on their internal adaptation process. It is important to allow the parents and children to determine their own interventions so that they gain ownership and have meaning to the client. This will increase the child’s ability to achieve relative mastery in their occupations. Relative mastery is described in OA as the efficiency, effectiveness, and satisfaction one has about themselves and their surroundings (Schkade & Schlultz, 2003 as cited in Bouteloup & Beltran, 2007). In order to determine if they have achieved relative mastery, the children will evaluate their progress. Evaluating progress will be done through self assessment questionnaires, health promotion charts, and discussion questions that are provided in the parent handbook. The health promotion handbook will assist the client in achieving adaptive capacity so that they can appropriately respond to their environment and other demands in order to reach relative mastery.

In summary this chapter explained the need for this scholarly project as well as the reasoning for choosing the first grade population, and the model that best fits this project. The literature review will further examine the need for a parental handbook. The literature review will also examine programs that have been developed and implemented to determine what should be included and incorporated in the health promotion parent handbook. The chapters following the literature review will discuss how the scholarly product was developed, the actual parent handbook, and recommendations on how to successfully implement this parent handbook in the home environment.
CHAPTER II

LITERATURE REVIEW

The purpose of this literature review is to gather information to support the development of a parent handbook to promote healthy habits and routines in 1st grade children in the home environment. In order to develop this, the literature will describe the need for the parent handbook. It will also describe obesity and the risk factors that are involved. Lastly, the literature review will explore programs that have been developed to determine effective strategies that will be included in the parent handbook.

This scholarly project will focus on the nutritional and physical activity needs in order to live a healthy lifestyle. The literature discusses the importance of these two topics as well as the adverse effects if physical activity and nutrition are not incorporated into a child’s daily routine.

According to the American Diabetes Association (2000), 80% of overweight children stay overweight into adulthood. The U.S. Department of Health and Human Services (2005) defined overweight as having a Body Mass Index (BMI) score between 25 and 29.9. Obesity is defined as anyone who has a BMI of 30 or higher. Body Mass Index is determined based on one’s height, weight, and gender. Several risk factors that contribute to the cause of obesity. According to the Mayo Foundation for Medical Education and Research (2006) risk factors include diet, activity level, genetics, psychological factors, and environmental factors. Since overweight children often turn
into overweight adults, prevention, early diagnoses, and treatment is necessary at the grade school level.

Early intervention is necessary to promote healthy lifestyles and reduce the risk of obesity. “Prevention of childhood overweight should preferably target the parents and other caregivers” (Mondini, Levey, Saldiva, Vendancio, Azevedo Aguiar, & Stefanini, 2007, p.1825). It is important to consider developmental changes that occur during this age in order to develop appropriate health promotion strategies. There are many changes both physically and mentally that are occurring during these childhood years. First graders are developing reading skills, math skills, and social skills. These children are starting to develop fine and gross motor skills as they participate in structured activities such as sports. Abstract thoughts and complex ideas are just starting to emerge between the ages of six and eight. Self control and attention span increase during this age range and the child is starts to develop their own thoughts, beliefs, and opinions (Advocates for youth, 2007). These developmental stages of a first grader will be incorporated into the parent handbook to insure that the children will be able to understand and achieve mastery using these age appropriate skills.

Children develop and practice their age appropriate developmental skills through play. Play is the main occupation for children (Case-Smith, 2005). Children learn how to interact with others in their environment through play. They develop their fine and gross motor skills while also developing socialization, language, problem solving, and interpersonal skills. During play, children enjoy several sensory experiences, develop an emotional wellbeing, and learn how to interact with their environment. It is important that a child experiences a variety of activities so that their brain receives stimulation for development. In the past play primarily consisted of several outdoor activities such as baseball, riding bike, playing tag, and swimming but societal
and technological influences are changing the way that children play. There are increasing numbers of sedentary activities that are becoming popular for children. Video game systems, movies, computers, and cartoons are starting to consume play time.

One sedentary play activity in particular that hinders health promotion is watching television. According to the Henry J. Kaiser Family Foundation (2004), children spend an average of 5.5 hours per day using media. Watching television has been associated with eating food either while watching television or as a result of food advertisements (Robinson, 1999, as cited in Giammattei, Blix, Marshak, Wollitzer & Pettitt, 2003). Giammattei, et al. (2003) found that children who watch more television tend to have a higher body mass index (BMI), are less physically active, and have a higher percentage of body fat. They also found that the number of hours spent watching television and the amount of soft drinks consumed each day had a direct effect on the child’s BMI and body weight. Reducing sedentary activities and increasing physical activity in children could potentially make the child’s lifestyle healthier. Increasing physical activity at a young age would help them to develop healthy habits and routines as they grow.

According to the Corbin and Pangrazi (2003), children should engage in 60 minutes of physical activities per day. Physical activity provides a means for children to develop confidence and mastery over their behavioral and motor skills (Center for Disease Control and Prevention, 1997). There are several other additional benefits of physical activity including excitement, fun, increased strength, better appearance, increased fitness, increased flexibility, and improved endurance (Center for Disease Control and Prevention, 1997). Cognitive and psychosocial functions may also be affected positively by physical activity.

Many studies explored the relationship between physical activity, self esteem, and self efficacy. Having increased levels of physical activity in ones’ life can increase one’s motivation,
independence, and self confidence (Reynolds, Killen, Bryson et. al 1990, as cited in Strauss, Rodzilsky, Burack, & Colin, 2001). All of these characteristics are very important in increasing someone’s self worth and self esteem. Strauss, Rodzilsky, Burack, & Collin, M. (2001), concluded that children spend roughly 12 minutes a day participating in physical activity, while they spend roughly 10 hours engaging in sedentary activities. This study also addressed feelings of self efficacy, which can be defined as “the belief that one can successfully perform a desired behavior” (Strauss et al, 2001 p.900). There is an association with high levels of physical activity and self efficacy (Strauss et al, 2001). “Therefore, programs that enhance children’s beliefs in their ability to exercise may actually increase motivation to be physically active” (Strauss et al, 2001, p. 900). Overall the benefits of physical activity can help reduce symptoms of depression and anxiety and increase one’s self esteem (Landers, 2002).

The amount of physical activity also affects how well the brain functions. According to Kemper (2001) exercise and cognitive functions are related. Exercise increases the blood flow to the brain and increases its state of arousal. Regular physical activities also improve learning and memory functions (Cotman, C, Berchtold, N, & Christie, L, 2007).

Not only does physical activity have benefits for the brain, proper nutrition plays an important role in the brain and how it functions. According to Ingwersen, J, Defeyter, M, Kennedy, D, Wesnes, K. & Scholey, A (2006), eating a cereal with low amounts of sugar helped children to pay attention, increased their short term memory, and helped them to retrieve information better throughout the morning than a child who eats a sugary cereal. Stevenson (2006) suggested that foods with added flavorings and preservatives often increase behaviors such as hyperactivity. Children with hyperactivity often have difficulty concentrating and sitting still in a class room environment. There benefits to overall healthy by eating a diet that is low in
sugar to reduce behaviors of hyperactivity. Skipping breakfast can have adverse effects on a child and their performance in problem solving (Pollitt, Leibel, Greenfield, 1981, Pollitt, Lewis, Garza, Shulman, 1982, Pollitt, 1995 as cited in Center for Disease Control and Prevention Center for Disease Control and Prevention, 1996). One study found that children coming from low income families who participated in a school breakfast program had shown improvements on test scores and were absent from school less than those who did not participate in the program (Meyers, Sampson, Weitzman, Rogers, & Kayne, 1995 as cited in Center for Disease Control and Prevention, 1996).

A child’s body needs essential nutrients and vitamins to function properly. Munoz, Krebs-Smith, Ballard-Barbash, & Cleveland (1997) found that only about 1% of children in the United States currently meet the national recommendation guidelines for nutrition. According to the United States Department of Agriculture (2007), there are six categories of foods that one should eat on a daily basis. The six categories are grains, fruits, vegetables, oils, milk, and meat and beans. There are daily recommendations for each category based on a person’s age and gender. Children in first grade should consume 4-5 ounces of grains, 1 ½ cups of vegetables, 1 to 1 ½ cups of fruit, 2 cups of dairy, and 3-4 ounces of meat and beans (United States Department of Agriculture, 2007).

If a child does not meet these daily recommendations, malnutrition, nutrient imbalance, or undernourishment can occur which can interfere with the brain function and physiology. Iodine is one of those essential nutrients that are required for the formation of thyroxin. Iodine can be found in yogurt, 2% milk, strawberries and eggs (Mateljan, 2007). If a person at any age does not consume enough iodine in their diet, mental retardation could result (Yehuda, Rabinovitz, & Mostofsky, 2006). Iron is another essential nutrient. Unfortunately, iron
deficiency is the leading nutritional disorder among all age groups. Red meat, chicken, pork, spinach, prune juice, rice, raisins, and pretzels are foods that are rich with Iron (Food-info, 2007). Iron deficiency can cause people to have decreased energy, decreased ability to concentrate, slows down the maturation and development of the brain, and may even have links with attention deficit hyperactivity disorder (ADHD) (Yehuda et al. 2006).

The developing child’s brain also relies on essential fatty acids (EFA) for normal neurological development. Essential fatty acid deficiency (EFAD) can cause serial and spatial learning difficulties. Yehuda et al. (2006) stated that learning deficits can be the result of malnutrition. They found that “a large percentage of children with ADHD are iron deficient, EFAD, and some are both” (Yehuda et al., 2006, p. S24). It is important that children receive proper nourishment through the foods that they eat in order to foster proper brain development and maturation.

Another factor that limits a child’s nutritional intake is the lack of knowledge about serving size. The USDA uses serving sizes as a way to consume the right amount of nutrition throughout the day. The USDA recommends that children between the ages of 2-6 should have 2 servings of fruit and 3 servings of vegetables a day (Produce for Better Health Foundation, 2007). For children it may be hard to determine how much is included in a serving size. The parent/guardian handbook will include visuals for children to recognize appropriate serving sizes for the 6 food groups. Included in the parent/guardian handbook will be an interactive activity with the child and parent to gain a better understanding of a serving size. Those children that do not understand what a serving size is may tend to eat unhealthy foods and not enough healthy foods.
Malnutrition and overeating can cause a child to become overweight or even obese. Van Lenthe, Kemper, & Van Mecehelen as cited in Dietz (1998) found that overweight children tend to have early physical maturation, early age of female puberty, and were taller than their peers were at an earlier age. Undernourishment can also cause a child to have low energy, become sick more easily, and obtain lower scores on tests (Center for Disease Control and Prevention, 1996).

Another factor that has a significant impact on children and their eating and exercise habits and routines are their parents. Parents may not recognize this but they have the greatest influence over what their child eats (American Dietetic Association, 2007). Parents also have an influence on a child’s food preferences and activity choices and the amount of time they spend doing those activities. The parental imprinting on the child’s habits and routines may start as early as pregnancy with the child.

According to Mendoza (2007), a baby in utero develops the taste buds for the food the mother eats while pregnant. For example a child will acquire the same taste buds of oatmeal and carrots if that is what the mother eats during pregnancy (Mendoza, 2007). Breast feeding is also described to be beneficial in preventing the child from becoming overweight (Kramer and colleagues as cited in Battistini, Malavolti, Poli, & Pietrobelli, 2005). Children who are breast-fed stop eating when they are full rather than being encouraged to finish their bottle. Infants learn to respond to their body when they feel full which prevents overeating. Muhlhausler, Adam, Findlay, Duffield, & McMillen (2006) conducted a study on rats that determined the postnatal period is very critical because it programs the appetite and body fat mass. “Over nutrition during this time induces permanent alterations in the hypothalamic neurons that express the appetite-regulating neuropeptides, leading to persistent hyperphagia and associated obesity (Muhlhausler
et. al., 2006). Once a child is born, the family and their roles continue to make an impact on the child’s eating and physical activity habits.

Children are easily influenced and develop their habits and routines based on the external stimuli around them. Pagnini, Wilkenfeld, King, Booth and Booth (2007) stated that “Parents play a particularly crucial role in influencing young children’s food habits and physical activity. They are the main providers of food and supervisors of their children’s activities” (p. 806). Reinaerts, Nooijer, Candel, and de Vries (2006), conducted a study to explain the consumption of children’s fruit and vegetable consumption. This study found that children’s fruit and vegetable consumption is based on the availability, parental consumption, and habit. A child’s fruit and vegetable consumption was primarily based on the availability and exposure to them in their home environment, in which the parent is the one providing the fruits and vegetables in the home. The results propose that exposing children to different kinds of healthy foods may allow them to become more familiar with the products, which may increase their consumption.

The amount of physical activity a child participates in can also be impacted by the parents. Moore, Lombardi, White, Campbell, Oliveria, & Ellison (1991) found that children who have active parents are 5.8 times more likely to be active themselves compared to children with sedentary parents. This is known as role modeling where the children want to emulate the same behaviors as their parents (Welk, 1999). Children often look up to their parents as role models and participate in the same behaviors.

The parent/guardians behavior is not the only factor that has an impact on a child’s health choice; the families’ role also has high impact on the child’s lifestyle that affects their eating and physical activity habits and routines. Gibson, Byrne, Davis, Blair, Jacoby, & Zubrick (2007) found links between overweight children and their family roles. Children with a high BMI score
are significantly associated with being in a single parent family, having an overweight mother, having fewer people living in the home, having a lower socioeconomic status, and the mothers tended to have less education.

There is a significant association between maternal weight and the child’s weight. Gibson et al. (2007) found if a mother who is obese has a child, the risk of their child being obese or having weight issues is increased. They also found that the mother’s mental health is another factor that inhibits the family from seeking medical treatment for an overweight child.

Another risk factor for overweight in children is growing up in a single family home. These families may have difficulty maintaining a healthy weight due to the restricted availability of fruits, vegetables, and whole grain cereals which are more expensive, and finding local recreation facilities that they can afford to be members of (Gibson, Byrne, Davis, Blair, Jacoby, & Zubrick, 2007). Single parents tend to work long hours and have less time to spend with their children; their children have less supervision on what activities they participate in, and the parents may not be able to provide transportation to places for extracurricular activities. Single parent families often have a lower income when comparing them to a family with two working parents’.

According to the U.S. Census Bureau (2004), 35.9 million people live within poverty, this includes 12.9 million children. According to Shahar, Shai, Vardi, Shahar, & Fraser (2005), children from low socioeconomic status have a higher rate of obesity, less physical activity, and more cases of chronic disease. Mendoza (2007) stated that lower income neighborhoods have “fewer good supermarkets with fresh produce.” This environmental factor makes it difficult for low income families to access healthy fruits and produce because they may not have the transportation to shop at stores that sell fresh produce. This results in parents purchasing
unhealthy foods with low nutritional value because they are cheaper and more readily available (Mendoza, 2007). Children of low socioeconomic families are often left home alone during the evening while a parent is working, because parents of low socioeconomic status often need to work two jobs to provide for the family. This results with the children having to prepare their own meals and make their own choices on what to eat (Mendoza, 2007). The convenience of microwave meals may influence their decision resulting in an unhealthy meal with no real nutritional value.

There are several additional factors that have also contributed to this poor nutritional intake in children. Advertisement and marketing of poor nutritional foods is one such factor. The average child between ages of six and eleven watches 20,000 advertisements on television each year (Alderman, Smith, Fried, & Daynard, 2007). During Saturday morning cartoons, a child will see one food advertisement every five minutes (Kotz & Story, 1994). Batada and Wootan (2007) conducted a study that assessed the nutritional quality of foods that are advertised on Nickelodeon television, which is popular among grade school aged children. They found that 88% of the foods and beverages that were advertised on the children’s television channel did not meet the nutritional value for a healthy diet. The advertisements are for food that is high in fat, sugar and sodium (Kotz, Story, 1994, Cotugna, 1988, Taras, Gage, 1995 as cited in Center for Disease Control and Prevention 1996). This is concerning because Nickelodeon is the highest rated children’s programming channel in the United States (McDonough as cited in Batada & Wootan, 2007) and children develop their food preferences based on what they like or what they think is popular.

Advertisements can be seen through several different kinds of media, such as on buses, television, internet, and magazines. A study conducted by Robinson, Dina, Borzekowksi,
Matheson, & Kraemer (2007) stated that children from 3 to 5 years of age preferred food that was packaged in McDonald’s wrappers over no wrapper at all. Carrots were wrapped in a McDonald’s wrapper and children preferred them, even though carrots are currently not on the McDonald’s menu (Robinson, Dina, Borzekowski, Matheson, & Kraemer, 2007).

Advertisement is not the only environmental factor that plays a role in children’s habits and routines. Children learn how to behave from those around them too. Some children are taught to finish eating everything on their plates in the United States culture. This common cultural norm, may teach them not to waste food but it also teaches them to overeat. Children may not even get to determine what is on their plate or the portion size that they are to eat. Smiciklas-Wright, Mitchell, Mickle, Goldman, & Cook (2003) found that the portion size of several foods have gotten larger over the years. Restaurants in the United States have also followed this trend of serving larger portions. This may cause people to consume too many calories in one meal.

Using food as a reward is another factor that can increase a child’s risk for becoming overweight. Foods that are high in calories and loaded with sugar, such as ice cream and candy are used as a reward for finishing a meal or for doing their chores. Reinaerts, Nooijer, Candel, Vries (2006) stated that parents use snack foods as a reward for eating healthy foods. This teaches children that they deserve to eat junk food for completing a task or behaving well. Although mothers know the unsuitability of using foods as a reward, they continue to use this practice because it is convenient (Zehle, Wen, Orr, & Rissel as cited in Wen, Baur, Rissel, Wardle, Alperstein, & Simpson, 2007).

With all of these risk factors that can cause a child to become overweight or obese, it is important to reflect on the complications that arise when a child is overweight or obese.
Complications of being overweight or obese can include poor self esteem, depression, behavior problems, learning problems and an increased anxiety (Mayo Clinic Foundation, 2006).

According to Dietz (1998), children who are overweight tend to be much taller than children who are of normal weight. This may cause confusion among adults who assume the child is older. They may hold the child to a higher standard and expect the child to display a higher level of maturity. This high expectation and misunderstanding of the child sets the child up for failure when they do not meet the higher expectations. This may cause frustration in the child, which in turn may cause them to be less willing to have relationships outside of their family. This isolating behavior will cause children to become dependent on family members and the child may experience depression. Obesity has also been characterized as the “last acceptable form of prejudice” (Chambliss, Finley, & Blair, 2004, p. 468). According to the Mayo Clinic Foundation (2006), obese children develop low self esteem due to their peers bullying and making fun of them. This low self esteem then increases the child’s risk for depression. Children tend to judge others based on their appearance and rank overweight children as the last person they would like to be friends with (Dietz, 1998). Obese children are less likely to engage in physical activity because they fear that they will be judged and ridiculed by their peers (Bovet, Auguste, & Burdette, 2007). These social restrictions can have devastating effects on one’s self esteem which can continue into adulthood.

Children who have unhealthy eating habits “tend to maintain these habits as they age” (Kelder, Perry, Klepp, Lytle, 1994 as cited in Center for Disease Control and Prevention, 1996, ¶16). If obesity persists into adulthood, it can have lifelong detrimental affects on one’s social, economical, and educational situations. According to the Mayo Clinic Foundation (2007), one in three adult Americans are obese. Obesity in adulthood can continue to inhibit all aspects of their
daily life, including their occupations and the ability to socialize with others. According to Dietz (1998), women who are obese in young adulthood reported less education, less income, and lower rate of marriage.

Since “childhood obesity is a national public health problem” (U.S. Department of Health and Human Services as cited in Alderman, Smith, Fried, & Daynard, 2007, p.90), this scholarly project will review existing programs related to health promotion to identify effective programming strategies. Wen, Baur, Rissel, Wardle, Alperstein, and Simpson (2007) stated that early intervention is vital in order to prevent obesity early in life. Childhood is a critical period for nurturing healthy habits and routines.

There are several nutrition based programs that have been implemented in the school systems. One such program is called “Generation Fit” (American Cancer Society, 2007). This program targeted children and their participation in a community service project. The students participated in many activities in their schools and communities. For example, the older children taught healthy habits to younger children. Another after school program called “The Power of Choice” focused on improving food and activity choices (Food and Drug Administration & Food and Nutrition Services, 2004). This program utilized a leader to teach children how to read nutrition labels and how to cook healthy meals (Food and Drug Administration & Food and Nutrition Service, 2004). Although these programs promoted healthy nutrition and fitness, their targeted age group was between the ages of 11 and 18 years old. This scholarly project found supportive research that these types of interventions should be started at a younger age in order to prevent obesity. Peterson and Fox (2007) completed a thorough review of the literature to find out what school based interventions have been implemented and which programs were effective. They reviewed several studies and found 38 studies that met their inclusion criteria. All
but three of the studies targeted nutrition and physical activity. Project SPARK is a program that focused on increasing the physical activity levels of children. This program only addressed the physical activity portion without addressing sedentary behaviors or nutrition. The Child and Adolescent Trial for Cardiovascular Health (CATCH) addressed nutrition through the National School Lunch Program and the School Breakfast Program. The Stanford Media Awareness to Reduce Television (SMART) program focused on reducing sedentary habits of watching television. The existing literature did not provide a definite answer for optimal intervention however; the Community Preventive Services Task Force along with ADA found that interventions should address the child’s physical activity level, nutrition, and sedentary behaviors (Katz, O’Connell, Yeh, Nawaz, Njike, Anderson, Cory, & Dietz as cited in Peterson & Fox, 2007). The importance of involving the parents was also discussed. Peterson and Fox (2007) stated that parents should be involved in the intervention process to help their child change maladaptive behaviors in order to decrease the incidence of obesity and overweight. The SEGEV Program in Jerusalem also discussed the importance of involving parents. This study found that parental involvement significantly increased the results of improving the BMI in children when compared to the control group.

Another study explored the relationship of family and community involvement in schools. The Center for Disease Control and Prevention (1997) conducted this school health policies and programs study, which consisted of computer assisted telephone interviews with personnel from elementary, middle, and high schools. The interview asked questions related to the following categories; family and community involvement in school health councils, collaboration among education agency and staff, promotion of school health programs, school participation in community based health programs, teacher promotion of family and community
involvement and staff development on promoting family and community involvement (Michael, Dittus, Epstein, 2007). The study concluded that family and community occurred but “many schools are not doing some of the fundamental things school could do to increase family involvement” (Michael, Dittus, Epstein, 2007). They suggest that involving families and students in health education through homework, goal setting, family participation in physical activity, and finding health promotion projects in the community can be beneficial (Michael, Dittus, Epstein, 2007).

According to the Center for Disease Control and Prevention (1996) it is important to teach healthy eating habits and patterns when a child is young, because “high-risk eating behaviors and physiological risk factors are difficult to change once they are established during their youth”. The six Dietary Guidelines for Americans is what the Center for Disease Control and Prevention suggests to be a primary focus in establishing healthy eating habits in youth. The six guidelines are “eat a variety of food, balance food you eat with physical activity, choose a diet with plenty of grain products, vegetables and fruits, choose a diet low in fat, saturated fat, and cholesterol, choose a diet moderate in sugars, and choose a diet moderate in salt and sodium (Center for Disease Control and Prevention, 1996, ¶27.). The Center for Disease Control and Prevention also suggests the use of the food guide pyramid as a way to introduce “variety, moderation and proportionality” (Center for Disease Control and Prevention, 2006. The food pyramid is colorful and simple for a child to understand all the food groups and would be a good intervention to incorporate into this scholarly project.

Introducing different types of guidelines and the food guide pyramid will be a very beneficial way to expose a child on healthy eating habits. Children should also have access to healthy food and support from others (Lytle, Achterberg 1995 as cited in Center for Disease
Control and Prevention, 1996). Having family and community support and involvement will help show the importance of healthy eating (Center for Disease Control and Prevention, 1996).

According to Dietz as cited in Spiegel and Foulk, (2006), “prevention of obesity will require coordinated policy and environmental changes that affect large populations simultaneously”. This study stated that interventions should be implemented in the school systems to reduce overweight. These interventions should focus on the students in both the school and home setting. “Health educators must develop interventions that teach parents that a parental role model maybe a better method” (Reinaerts, Nooijer, Candel, & de Vries, 2006,p.256 Parent/guardians can become a positive role model in introducing healthy foods into their children’s lives through education on health promotion. The child’s behaviors should be addressed in the person’s natural context in order to influence the environment where the child lives (Lobstein, Baur, & Uauy as cited in Economos et al, 2007). Once established, unhealthy behaviors can be difficult to change and reestablish.

One method that could be used to promote healthy behaviors is to promote healthy habits and routines in the home environment. Parent/guardians can foster healthy healthy habits and routines that will help the child develop a healthier lifestyle. Certain skills such as self-control, decision-making, and self-monitoring are helpful in maintaining a lifestyle that includes proper nutrition and physical activity (Center for Disease Control and Prevention, 1997). It is easier to make changes as a family than to try to do it alone. Parent/guardians can be positive role models for their children, helping them to adjust to the lifestyle changes.

Parent/guardians not only should be educated on healthy eating, they should be educated on the programs, such as food stamps, special supplemental nutrition program for women, and
WIC, especially for those families who don’t have enough money to afford healthy produce (Center for Disease Control and Prevention, 1996).

Schools have addressed the health needs of grade school children in the school environment. However, as indicated in the literature review, the parents have a significant influence over the child’s habits and routines. This literature review was able to identify only one wellness handbook for parents (U.S. Department of Health and Human Services, National Institutes of Health, 2005). While this handbook describes factors related to health, it does not offer any health promotion activities that parents can do with their children in the home environment. Because additional literature described the influence of parents over their child’s lifestyle, this scholarly project will present a parent/guardian handbook that offers education and health promotion activities for parents to engage in with their children. Chapter three will describe the methods used to develop this parent/guardian handbook.
CHAPTER III
METHODOLOGY

An extensive literature review was conducted to gather information about health concerns in children, current health promotion programs, nutrition and physical activity education, and strategies to promote health in the home environment. The purpose of the literature review was to gather information to support the development of a parent handbook to promote healthy habits and routines in 1st grade children in the home environment.

Research articles were accessed and obtained using Pub Med, Scopus, and American Occupational Therapy Association (AOTA). Pub Med is a governmental database that was developed by the National Center for Biotechnology Information. Pub Med provides research articles through the National Library of Medicine and The National Institutes of Health. The following key words were used: wellness program, children, nutrition, brain function, physical activity, obesity, overweight, family, parents, socioeconomic, occupational therapy.

Scopus is a research database for educational materials in the field of science that was developed by librarians and researchers from thirty institutions around the world. Key words used include children, education, parents, wellness programs, and health promotion.

The American Occupational Therapy Association is the national organization for Occupational Therapy in the United States. They provide research information in the area of occupational therapy. Key words used included children, wellness, obesity, overweight, family, health promotion, and wellness programs.
The Center for Disease Control and Prevention (CDC) and The United States Department of Agriculture (USDA) websites were also used to gather information for this scholarly project. The Center for Disease Control and Prevention is a governmental online source for creditable health information in the United States of America. The United States Department of Agriculture is an organization that provides creditable information on a variety of areas including nutrition.

The literature review supported the need for a parent/guardian handbook to incorporate healthy habits and routines in the home environment. More specifically, the literature directed attention to the need for a parent/guardian handbook and offered ideas for what needed to be incorporated.

The parent/guardian handbook was developed to have two main sections: the nutrition section and the physical activity section. The literature discussed the need to educate children as well as adults about appropriate serving sizes. The authors made games and informational sheets that can be used by a first grader and their parent/guardian to learn about serving sizes. The Food Guide Pyramid was incorporated into the handbook to teach children what kinds of foods and how many servings their body needs on a daily basis. Food identification activities and choosing healthy foods games were developed and incorporated in the handbook as a teaching tool. Healthy school lunch and snack ideas and recipes were included to promote healthy eating. These recipes were chosen with a low socioeconomic status in mind in order to incorporate low cost food items so that everyone could afford them. This was important as the literature identified that people with a low socioeconomic status had difficulty affording fresh produce and other nutritious foods. Grocery shopping activities, nutrition games, nutrition coloring pages, and nutritional website resources were also included in the nutrition section.
The physical activity section provides parents and guardians with several ideas, resources, and activities to do with their 1st grade child. The literature review recommended that home modifications be made to promote physical activity. The handbook discusses ways to limit sedentary activities and modify the home environment in order to promote exercise and healthy eating habits. The handbook provides information about local resources for activities and the importance of exercise and walking. Seasonal scavenger hunts and activities are included to promote physical activity. The physical activity section also includes coloring sheets and games.

The Occupational Adaptation model was used to guide the development of the health promotion parent handbook. This model used in occupational therapy, notes the importance of achieving relative mastery in the occupations of choice.

According to the Occupational Adaptation model in order to achieve relative mastery, occupations should match the person, environment and activity. To facilitate this, the author’s incorporated fun nutritional games and physical activity games that a child in first grade would enjoy. The Occupational Adaptation model also indicates the need for feedback to elicit an adaptive response. Therefore this scholarly project incorporated “Healthy Choice” evaluation worksheets that promote discussion between the parent and child about the activities and educational material provided in the handbook. Reward certificates and motivational tools were incorporated to promote healthy activities until these behaviors become part of their habits and routines.

The health promotion parent handbook was designed to be implemented in the home environment throughout the course of one year. Healthy habits take time to develop and solidify in the child’s routine. With the help of this handbook, children will practice these healthy habits until it becomes part of their routine. The parent handbook provides educational material about
physical activity, nutrition, and the effects on the body and brain. The handbook provides several activities that can be incorporated in the home environment to increase healthy lifestyle choices. Activities, games, nutrition charts, physical activity charts, certificates, and educational materials are included to help the parent incorporate healthy habits in their child's and family's lives.

The goals of this program are to promote healthy lifestyle choices for children in the first grade in order to increase quality of life, health, and physical fitness. Physical activity and nutrition were the primary topics for the health promotion parent handbook.

This chapter discussed the product, theory, and literature review. A reference list is included with all of the resources used for the literature review and parent handbook. The product, a health promotion parent handbook, is meant to be used by parents or guardians of first grade children. Chapter 4 includes the parent/guardian health promotional handbook in its entirety.
CHAPTER IV
PRODUCT

This chapter presents the product as it would appear when given to parents/guardians as a tool for health promotion. The purpose of this parent/guardian handbook is to promote healthy habits and routines for children that will continue through adulthood. This scholarly project parent/guardian handbook was developed through direction of the Occupational Adaptation (OA). The model focuses on the person and environment and the interaction of the person on the environment (Schultz & Schkade, 1997). The person involves the cognitive, sensorimotor, and psychosocial systems. While the environment is the context in which the occupation is performed (Schultz & Schkade, 1997). The desired outcome that is established in OA is relative mastery. Relative mastery is the efficiency, effectiveness, and satisfaction one has about themselves and their surroundings (Schkade & Schlultz, 2003 as cited in Bouteloup & Beltran, 2007). This scholarly project’s primary outcome is that the child will achieve relative mastery through healthier habits and routines. The parent/guardian handbook is designed to be implemented in the home environment year round.

The parent/guardian handbook includes a table of contents to allow for easy navigation. The parent/guardian handbook includes a section related to nutrition. This section provides information about daily recommendations, serving sizes, recipes, food guide pyramid, and activities. There is another section related to physical fitness. This section includes the importance of physical activity and a variety of ways to incorporate physical activity in their child’s lifestyle. All of these activities are activities that will help develop the skills needed for the main component of OA which is relative mastery. The activities are fun and engaging which will motivate the child to participate in the activities. The parent/guardian handbook also
includes physical activity and nutrition charts which allow the child to feel the satisfaction of accomplishing a task. This will also motivate and encourage the child to improve their healthy habits and routines which will ultimately allow for relative mastery. Occupational Adaptation involves allowing the client or child to evaluate their performance in activities. The parent/guardian handbook provides before and after questionnaires to help determine and evaluate how the child felt about the various activities they engaged in. Lastly, the appendix section provides a variety of games, charts, certificates, and coloring sheets that are related to nutrition and physical activity.

It is recommended that the parent/guardian handbook be introduced by an elementary school Occupational Therapist. The occupational therapist would be responsible for introducing the parent/guardian handbook to parents/guardians and discussing how it should be implemented in the home. The occupational therapist would provide in services at the elementary school. The first in service would consist of the occupational therapist discussing with the parents/guardians the need for programming in regards to prevent childhood obesity. The in service would also include discussing how to incorporate the handbook into their home. The occupational therapist will discuss the nutrition and physical activity sections, and also introduce the evaluation that is provided in the handbook. Other in services will be provided to allow for parents/guardians to discuss how the program is working and ask any questions they may have.

Once the parent/guardian has gone to the first in service it is suggested that they read the handbook in its entirety before implementing it in their home. Once read the parent/guardian may determine what strategies would be the most beneficial for their child. The success of this parent/guardian handbook is based on the motivation of the parent/guardian to want to achieve
healthier habits and routines for their child. The handbook was developed to incorporate fun pictures and games in order to motivate both the child and the parent/guardian to use and implement it. Following the parent/guardian handbook, Chapter V includes the summary and recommendations of this scholarly project.
Promoting children's health in the home environment: A parent/guardian handbook
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Why should I care about my child's health?

Children as well as adults in the United States are getting heavier these days. According to the American Academy of Pediatrics (2003), 15.3% of children between the ages of 6 and 11 years old are obese. That means that the percentage of children who are overweight or obese has more than doubled since the 1970's (Mayo Foundation, 2006).

Children who are overweight or obese face social, physical, and psychological challenges. They may not be able to keep up with their friends, run as fast, breath as well, or have as high of a self esteem as their peers. They may tire easily, may not be able to wear the latest fashions, be as comfortable with their body and may be the target of teasing. Several health problems are often associated with being overweight or obese such as diabetes, high blood pressure, high cholesterol, asthma, and increased stress on their joints.
What is a healthy weight for my child?

This question is often asked to pediatricians and other health care professionals. It is a question that does not have a universal answer but is measured with a system developed called the Body Mass Index (BMI). A person's BMI is measured from their height, weight, and gender. Please use the charts below to determine your child's BMI or check out the following website to calculate their BMI.

A Quick and Easy BMI calculator can be found at:

2 to 20 years: Girls
Stature-for-age and Weight-for-age percentiles

NAME ____________________________ RECORD # _________________________

Mother's Stature  Father's Stature
Data  Age  Weight  Stature  BMI*

*To Calculate BMI: Weight (kg) = Stature (cm) + Stature (cm) x 10,000
or Weight (lb) = Stature (in) + Stature (in) x 703

Published May 30, 2000 (modified 11/21/09).
SOURCE: Developed by the National Center for Health Statistics in collaboration with
the National Center for Chronic Disease Prevention and Health Promotion (2000).
http://www.cdc.gov/growthcharts
2 to 20 years: Boys
Body mass index-for-age percentiles

<table>
<thead>
<tr>
<th>Date</th>
<th>Age</th>
<th>Weight</th>
<th>Stature</th>
<th>BMI*</th>
<th>Comments</th>
</tr>
</thead>
</table>

*To Calculate BMI: Weight (kg) + Stature (cm) + Stature (cm) x 10,000
or Weight (lb) + Stature (in) + Stature (in) x 703

Published May 30, 2000 (modified 10/16/09).
SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).
http://www.cdc.gov/growthcharts
Can physical activity and proper nutrition help my child learn?

Yes, it actually can help increase your child’s brain function. Nutrition plays a role in the development of a child’s brain. It is important that the developing brain gets enough iron and other essential nutrients to function properly (Yehuda, Rabinovitz, & Mostofsky, 2006). Exercise also helps with brain function. Exercise increases a hormone in the brain that reduces pain, increases energy, and helps a person to concentrate.
What can I do to help my child?

Exercise!

Do anything to get your child off of the couch and moving. Involve the whole family and make exercise fun. Try to make exercise fun so that the child learns to enjoy being active.

Eating Right!

Meals and snacks should not exceed 2000 calories a day. Remove the unhealthy foods and replace them with nutritious low calorie foods.

Set a Good Example

Children will be motivated to eat healthier and exercise more if you are setting a good example. Try new things like counting how many pets you can see while going for a walk around the block or seeing who can run the fastest to the end of the block. Try to keep games simple and fun. Acting silly may also encourage the child to get up and move. Make up your own dance moves or play exercise Simon Says.
NUTRITION
SECTION
Eating Right!

It is important to start having your child eating right at a young age. Eating well can have many benefits to for your child health. It can give you more energy throughout your day; help you grow strong muscles and bones, and a better mental health. It is important as a parent to teach your child about eating healthy. Teaching your child at a young age about nutrition can promote a healthier lifestyle. This following section will discuss nutrition and how to bring healthy eating into your homes.

Our bodies need proper nutrition in order to run correctly. We can help our body become strong through eating foods that are good for us. Currently, only 1% of children in the United States meet the national recommendation guidelines for nutrition (Munoz, Krebs-Smith, Ballard-Barbash, & Cleveland, 1997).
Daily Recommendations for your First Grader

**Milk/Dairy:** 2 cups

**Fruits:** 1- 1 \( \frac{1}{2} \) cups

**Grains:** 4-5 ounces

**Veggies:** 1 \( \frac{1}{2} \) cups

**Meat/Beans:** 3-4 ounces

(United States Department of Agriculture, 2007)

The Following Pages have the new food guide pyramid. Keep it handy, you may even want to Hang it up on the Fridge!
Another helpful resource to help you and your child understand daily recommendations is the food guide pyramid. The US Department of Agriculture (2007) designed this pyramid to help parents and children understand what and how much they should eat on a daily basis.

There are six main food groups. These food groups are milk/dairy, fruit, vegetables, grains, protein/meat, and fat (United States Department of Agriculture, 2007). It is important to eat balanced meals with the right portion of each of these food groups. These recommendations change as your child ages. It is important as a parent to help your first grader eat a healthy well balanced meal.
The colors represent the different food groups that make up the food pyramid.

- orange - grains
- green - vegetables
- red - fruits
- yellow - fats and oils
- blue - milk and dairy products
- purple - meat, beans, fish, and nuts

(KidsHealth for kids, 2007)
FOOD Guide Pyramid
for Young Children

A Daily Guide for 2- to 6-Year-Olds

MILK Group
2 servings

MEAT Group
2 servings

VEGETABLE Group
8 servings

FRUIT Group
6 servings

GRAIN Group
6 servings

Keep kids healthy.com, 2007

Eat a variety of foods and enjoy!
Food Guide Pyramid Games!

Here are some fun interactive games on the internet!

http://www.foodpyramidgames.org/games/welcome.html

Food Guide Pyramid Games


Food Guide pyramid Song

http://www.foodpyramidgames.org/games/songs/pyramid_e.swf

Food Guide Pyramid Games


MyPyramid Blast off Game
Food Group Matching Game

Directions: Cut out each square and match the picture with the correct food group

Fats & Sweets  Fruits  Vegetables  Milk  Meat  Grain
Food Group Matching Game

Directions: Draw a line to connect the food with the correct food group.

- Apple: FATS & SWEETS
- Chocolate bar: MEAT FOOD GROUP
- Lettuce: VEGETABLE FOOD GROUP
- Pizza: GRAIN FOOD GROUP
- Milk and cheese: FRUIT FOOD GROUP
- Cake: MILK FOOD GROUP
What is a Serving Size?

The USDA uses serving sizes as a guide to eat the right amount of nutrition throughout the day. The USDA recommended that children between the ages of 2-6 have 2 servings of fruit and 3 servings of vegetables a day (Produce for Better Health Foundation, 2007). Children may find it difficult to determine how much is included in a serving size. You can use the games included in this parent handbook to help your child learn how much a serving is.
Size it!

A Serving Size Matching Game

Directions: Match the food item with the object that is the appropriate serving size
Size It!

Answer Key

1 serving of Cheese (1.5 ounces) = 3 dominos

1 serving of cooked meat, poultry or fish (2-3 ounces) = cassette

1 serving of peanut butter (2 tablespoons) = golf ball

1 serving of vegetables (cooked or raw) (1/2 cup) = light bulb

1 serving of fruit (apple) = women's fist

1 serving of pasta, rice, or cereal (1 cup) = tennis ball

The National Center on Physical Activity and Disability Health Promotion, 2006
Healthy School Lunch Ideas

Your child may decide to eat the meals prepared at school or bring their own lunch to school. Parents can be involved in packing school lunches to help children make healthy nutritional choices. Some tips for school lunches are listed below.

1. Keep the food pyramid in mind when packing your child's lunch. (Put pyramid on the fridge!)
2. Involve the child in the decision making process. You may want to help your child pack their lunch the night before to allow more time to get ready in the morning.
3. Make fun snacks that are healthy. You may want to look through the recipe ideas to jazz up your child's lunch.
4. Pack a fruit or vegetable that is already cut. Your child will be more likely to eat it if it is already prepared for them.
5. Leave your child a surprise note or a comic strip from the newspaper to enjoy at lunch time. Your child will appreciate the extra little things that you do.
6. Cut your child's sandwich with a fun cookie cutter.
7. Bite Size your child’s lunch- pack pinwheels (see snack ideas), bite sized cheese, grapes, cherries, etc.
8. Don’t forget about a healthy beverage. Water or 100% juice can be easily packed and has a better nutritional value than pop or high sugar juice boxes.
Healthy Snack Ideas
Healthy Snacks

Fruit and Cheese Bites
You will need crackers, cheese, and fruit. Cut the fruit and cheese into bite size pieces and stack them on a cracker.

Fruit Kabobs with Fruit Dip
You will need a variety of different fruits, kabob sticks, cool whip or lemon yogurt. Spear bite sized pieces of fruit and then dip them into cool whip or lemon yogurt.

Trail Mix
You will need popcorn, dried fruit, nuts, and teddy graham crackers. Combine all of the ingredients and enjoy!

Pinwheels
You will need tortilla wraps, ham, cream cheese, celery, and green bell peppers. Cut the vegetables into small pieces and add them to the cream cheese. Spread the mixture on the tortilla wrap and roll them up.
Bumps on a Log

You will need celery, peanut butter, and raisins. Cut celery into 4 inch pieces. Spread peanut butter on celery and then top it with raisins.

Juice Popsicles

You will need your favorite juice and a popsicle tray and sticks. (Dixie cups and popsicle sticks will also work.) Pour the 100% juice into the tray or cup of choice so that it is ¾ full, then put it in the freezer. You will have homemade popsicles in about 2 hours.

Fancy Sandwich

You will need bread, cookie cutters, chicken salad, and celery. Make the chicken salad by combining chicken, miracle whip, and celery chunks. Spread the chicken salad onto the bread and then cut with a cookie cutter. Children will enjoy helping you make this fun snack.


These are just a few recipes that you may want to try. You can find more recipes for healthy snacks and meals at the following websites.


http://www.mealtime.org/recipe_search.aspx
Choosing Healthy Foods

Directions: Help the children find their way through this maze to get to the picnic. Circle the healthy snacks to make a pathway to good nutrition.
Grocery Shopping with your Child

It's important to make grocery shopping with your child a fun and educational experience. Taking your child with you to the grocery store will be a great time for you to teach your child about nutrition. Start off with the produce section and ask your child to pick out two vegetables or fruits they would like to try. This way the child is deciding for themselves.

Next page: Grocery Store Lists- make copies of them, then you can always have them on hand!
Grocery Store Shopping List

Fruits: ___________________________
________________________________
________________________________
________________________________
________________________________

Vegetables: _______________________
________________________________
________________________________
________________________________
________________________________

Whole Grains: _____________________
________________________________
________________________________
________________________________
________________________________

Meat/Nuts: _________________________
________________________________
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Milk/Dairy: _________________________
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________________________________
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Drinks: ____________________________
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Grocery Store Scavenger Hunt

Here is a fun way to help your kids understand the grocery store and how to choose healthy foods in a fun way. Make a list of groceries with your child using the grocery list provided in this handbook. Make up questions to help the child guess what foods are on the list by describing the color, shape, size or nutritional facts about the food.

Here are some examples

Find the fruit I am thinking of. It is yellow and monkeys like to eat it.

Can you guess what it is? It is a banana.

This vegetable grows in the ground. It is an orange root that we eat and it can be dipped into ranch. Do you know what it is? It’s a carrot.

This is a drink that comes from a cow. It is white and filled with nutrients that help your bones grow strong. Do you know what it is? It’s milk.
Making Grocery Shopping Fun!

Children love to be involved in activities that keep them busy. Create a shopping list and then divide it up amongst the children to have them hunt for the food items. Let them pick out a new fruit or vegetable to try.
Cooking with your Child

A fun way to get your child interested in Nutrition and healthy snacks is to introduce them to cooking. You can make cooking a fun family activity that everyone can enjoy. Here are some fun ideas:

* Cooking breakfast in the morning- give your child a job (i.e. buttering the toast, setting the table, mixing the pancake mix, and making the juice)

* Making cookies (healthy ones of course!) Search the internet for healthy recipes!

* Making after school snacks (check out healthy snack ideas in this handbook)

* Making a family dinner - Kid's choice- help your child research on the internet for a recipe they would like to eat!

* Making fruit smoothies- Just blend your favorite fruits with yogurt, milk, and ice!

* Teaching your child about safety with cutting, cleaning foods, using the oven and stove top (See page 34)
Make your own recipes

_(Child's Name)_'s Recipe

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Safety in the Kitchen

First things first: Safety! Talk to your child about using safety in the kitchen.

Remind them to:

- Always wash their hands (before handling food, before they eat, and after they eat)
- Only cook when being supervised by an adult
- Wear an apron
- ONLY parents can use knives, scissors, and electric appliances
- Stand on a stable step stool, not a chair with wheels!
- Rinse their fruit and vegetables with water
Seasonal Recipes

Fall

Summer

Winter

Spring
Roasted Pumpkin Seeds

Ingredients:

- 1 cup pumpkin seeds
- 1 Tbsp melted butter or vegetable oil
- 1 tsp seasoning (salt, seasoning salt, garlic powder, chili powder or a combination thereof.)

Directions:

1. Preheat oven to 300F
2. Wash the seeds off with cold water
3. Pat dry with a towel
4. In a mixing bowl or Ziploc bag combine 1 cup pumpkin seeds, 1 Tbsp vegetable oil and 1 tsp salt (you can double or triple this recipe if you like)
5. Spread the seeds evenly on a cookie sheet
6. Total bake time is 30 minutes (they should be golden brown) About 15 minutes in, take them out and stir them around. About 25 minutes in, check them... they may be done at this point. If not, leave them the extra 5 minutes.
7. Let them cool and then eat.
Chicken Soup with Stars -familyfun.com, 2007

Ingredients:

- 1 quart water
- 1 quart chicken stock
- 1 small onion, peeled and cut in half
- 2 celery stocks chopped into bite sized pieces
- 1 bay leaf
- Salt and Pepper to taste
- 1 pound boneless chicken breast, cut into 2 or 3 large pieces
- 4 medium carrots
- 3 tablespoons pastina (available in the pasta section of the grocery store)

Directions:

1. In a large soup pot, help your child combine the water, chicken stock, onion, celery, bay leaf, and salt and pepper. Bring to a rapid boil. Add the chicken breast pieces and reduce the heat to low. Cover and simmer for 30 minutes, or until the meat is tender and cooked through. Meanwhile, peel and dice the carrots (or, if you have a star-shaped mini cookie cutter, cut them into stars). When the chicken is done, use a slotted spoon to remove it from the stock, along with the bay leaf, celery and onion pieces. Discard the vegetables.

2. Allow the chicken to cool slightly and then cut it into cubes. Return the cubes to the stock, add the diced carrots and bring the soup to a boil again. Stir in pastina and simmer until the stars are cooked. Serves 6 to 8 people
Homemade Energy Bars- familyfun.com, 2007

Ingredients:

• 1 egg
• 1/2 cup brown sugar
• 1 tsp. vanilla extract
• 1 cup granola
• 1/2 cup raisins (or any chopped dried fruit)
• 1/2 cup chopped hazelnuts (or your favorite nut)
• 1 1.69-oz. pkg. M&M's chocolate candies

Directions:

1. Preheat the oven to 350 degrees. Generously butter or oil an 8- x 8-inch square pan (preferably nonstick). Crack the egg into a medium-sized bowl. Add the sugar and vanilla extract and mix thoroughly.

2. Stir in the granola, raisins, hazelnuts and M&M's and mix until combined.

3. Transfer to the pan and distribute evenly over the bottom, pressing firmly with your hands.

Frozen Fruit pops - familyfun.com, 2007

Ingredients:

- 3 cups grape juice or fruit punch
- One 14 oz. can sweetened condensed milk
- ⅓ cup lemon juice
- Twelve 3 oz. paper cups
- 12 wooden sticks (you can also use spoons if you don't have wooden sticks)

Directions:

1. Mix juices and sweetened condensed milk with a wire whisk.
2. Transfer the mixture to a container with a pouring spout.
3. Put the paper cups onto a square pan (cookie sheet) and fill the cups, almost to the top, with the juice mixture.
4. Put in the freezer for 1 hour.
5. After 1 hour remove the cups from the freezer and place a wooden stick in the middle of each "pop". Return to the freezer for 5 hours.
6. To serve, peel off the paper cup. Frozen pops will keep in the freezer for up to 2 weeks if kept in a plastic bag. Makes 12 pops.
Hot Apple Cranberry Cider - Recipezaar, 2007

Ingredients:

- 8 cups apple cider or apple juice
- 1 cup frozen raspberry concentrate 1/4 cup sugar (to your taste)
- 1 cinnamon stick
- frozen raspberries

Directions:

1. Combine all ingredients in a 4-quart sauce pan.

2. Simmer over medium heat for at least 20 minutes.

3. Put 3 or 4 frozen raspberries in each glass before serving. If you are wanting to make larger recipe, use two 12 oz containers of raspberry concentrate to every 3 gallons of apple cider.
Mom's Chili - Recipezaar, 2007

Ingredients:

- 3 lbs ground beef
- 1 large onion garlic 46 ounces tomato juice
- 12 ounces tomato paste
- 28 ounces petite diced tomatoes
- salt and pepper
- chili powder
- 1 1/2 ounces hot chili seasoning mix, McCormicks
- 4 (15 ounce) cans kidney beans

Directions:

1. Brown hamburger with onions and garlic.

2. Add all remaining ingredients and simmer for 2 hours. (You can brown the hamburger the night before and add all ingredients in the crockpot, refrigerate, and then set on low while you are at work the next day) (approx. 8 hours) Dinner will be ready when you get home!
Kids Favorite Fruit Salad - Familyfun.com, 2007

Ingredients:

- 1 (17 oz.) can fruit cocktail, drained
- 1 1/2 cups miniature marshmallows
- 1/4 cup drained maraschino cherries, halved
- 2 medium bananas, sliced
- 1 medium apple, coarsely chopped
- 1 1/2 cup frozen whipped topping, thawed, or sweetened whipped cream
- Lettuce leaves

Directions:

1. In large bowl, combine all ingredients except whipped topping and lettuce; mix lightly. Gently fold in whipped topping. Serve immediately, or cover and refrigerate until serving time.

2. To serve, spoon salad onto lettuce-lined plates. If desired, garnish with additional maraschino cherries.
SUMMER BLEND PUNCH- Cooks.com, 2007

Ingredients:
- 2 liters Sprite
- Water
- lime juice
- 335 ml frozen orange juice
- 35 ml frozen pineapple juice
- 1 pint of cranberry juice

Directions:

1. In a large punchbowl, add whole cans of FROZEN, NOT THAWED orange juice and pineapple juice. Add 3 quarters of the Sprite, 3 teaspoons of lemon juice, 1/2 cup of water.

Using a hand blender, puree all frozen orange and pineapple juice together. When smooth, add a pint of cranberry juice.

Be sure all ingredients are well chilled before serving
# Fruit

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## WORD BANK

- Apple
- Banana
- Grape
- Lemon
- Lime
- Melon
- Orange
- Pear
VEGETABLES

WORD LIST

TOMATO
GREEN BEANS
ONIONS
CORN
CARROT

BROCCOLI
CELERY
LETTUCE
PEAS

76
Food Identification Game

Directions: Circle all of the vegetables.

How many did you find?
Food Identification Game

Directions: Circle all of the foods that belong to the milk group.

How many did you find?
Food Identification Game

Directions: Circle all of the foods that belong to the **fruit food group**.

How many did you find?
Nutrition

Coloring Pages
Free Coloring Pages, 1998
Free Coloring Pages, 1998
Free Coloring Pages, 1998
Free Coloring Pages, 1998
Free Coloring Pages, 1998
Free Coloring Pages, 1998
INTERNET WEBSITES-Kid friendly!

Here are some fun websites that you and your children can check out. They have fun games, recipes, and tips for eating right!

http://www.keepkidshealthy.com

www.dole5aday.com

http://www.kidsnutrition.org/

www.kidshealth.org
PHYSICAL ACTIVITY
SECTION
Physical Activity

The Center for Disease Control and Prevention (CDC) (2007) recommends that children participate in 60 minutes of physical activity on most days preferably every day.

Physical Activity is important because it helps our body become strong, flexible, and coordinated. Involvement in daily physical activity can reduce the risk of chronic health conditions such as heart disease and diabetes. Participating in physical activity is good for mental health and can be a good stress reliever for some people. Exercise also increases oxygen to the brain which increases our thinking abilities.

Children in the first grade are working on several physical skills. These skills include developing coordination, motor skills, fitness level, body control, flexibility, and balance. There are all kinds of fun activities that you could do with your child to help them develop these fundamental motor skills.

What kind of physical skills are children developing in the first grade?

- Coordination
- Motor skills - movement
- Fitness level
- Body control
- Flexibility
- Balance
Home Modifications

One easy way to increase physical activity and healthy eating for your child and yourself is to make simple changes around the home. Here are some ideas...

- Limit Television and video games to 1 hour a day
- Limit Computer game playing to 30 minutes a day
- Provide your child with toys that promote physical activity (Frisbee, basketball, roller skates, jump rope, etc.)
- Have your child bring their dirty clothes from their room to the laundry room 3 times a week
- Involve your child with weekly household chores (examples: sweeping, mopping, dusting)
- Plan weekly family outings ("Sunday Fun Day") - include physical activity such as walking, biking, etc.
- Avoid having sweets in the house (if they aren't around, children won't be tempted to eat them)
- Join a gym- Check with your insurance, they may offer a discount. Keep in mind when looking for a gym that there are fun options for your child (pool, all purpose gym)
Walking is a great physical activity that can be done alone or as a family. For some children walking may get boring after a few minutes. Walking scavenger hunt example ideas can be found on pages 69-72 of this handbook. Take these handouts along and your child will really enjoy going for a walk!
Local Resources for Activities

There are many resources to use in your community.

It just takes some researching...

Here are some resources that can help jump start your search!

- YMCA or Local Gyms
- Community Recreation Centers
- Local Zoos
- Check out your local newspaper for community events (family fun walk, bike-a-thon)

The following pages list some fun activities you can enjoy as a family during the four seasons of the year.
Fall Activities You Can Do With Your Child

- Rake Leaves
- Play in the Leaf Piles
- Go for a Walk
- Bike
- Rollerblade
- Search for different kinds of leaves to make a leaf book
- Stuff a scarecrow
- Play Frisbee
- Play Catch
- Play Tag
- Play Red Light, Green Light
- Play T-ball
Winter Activities You Can Do With Your Child

Go Sledding
Go Skiing
Build a Snowman
Snowball Fight
Go Snowboard
Go for a Walk
Make Snow Angels
Make a Snow Fort
Spring Activities You Can Do With Your Child

- Plant a Garden
- Go on a Nature Walk
- Backyard games
  - Kickball
  - Baseball
  - Volleyball
- Blowing bubbles
- Play Tug-a-War
- Play at a Park
- Jump on a Trampoline
Summer Activities You Can Do With Your Child

- Go to the beach
- Ride Bike
- Go Swimming
- Summer sports
- Run in the sprinkler
- Go Rollerblading
- Amusement Parks & County Fairs
- Hopscotch
- Dance
- Jump rope
Fall Scavenger Hunt!

Directions: Go for a walk as a family and bring this list a long. Have your child try to find all of the items on this list! Bring along a brown paper bag to put the items in!

- Red leaf
- Yellow leaf
- Orange leaf
- Green leaf
- Pine cone
- 5 small sticks that can fit in the bag
- Flower (don't take flowers from your neighbors pots!)
- Rock
- Wood Chip
- Acorn
- Berry

When the walk is over, warm up with a cup of warm apple cider. Have the kids arrange all of their findings in a basket that you can use as a centerpiece at the dinner table!
Winter Wonderland Walk

Directions: On a beautiful winter day bundle up and go for walk.

Count how many times you see the following things!

- Snow Forts
- Snowman
- Children sledding
- Snow blowers
- Snowmobiles
- Outdoor hockey rinks
  - Birds
  - Rabbits
- Holiday decorations
- Evergreen trees
Spring Fun Walk

Directions: Go for a walk as a family on a nice spring day. Bring this list a long and have your child count how many items they see from the list below.

- Gardens
- Trees
- Flowers
- People washing their car
  - People walking
  - Children playing
- Swing sets
  - Birds
  - Dogs
- Red houses
- White houses
- Squirels
Hot Summer Walk!

Directions: Go on a walk as a family and have your child count how many times they can see the following items! You may want to bring a pen to help keep track and a water bottle.

- Count how many do you see
  - Dogs
  - Cats
  - Bikers
  - Sprinklers
  - Swimming pools
    - Birds
    - Rabbits
  - Lemonade Stands
    - Lakes
  - Convertible cars
    - Kids playing
Physical Activities Are Fun!

WORD LIST

JUMP
SKIP
SWIM
SWING

RUN
BASKETBALL
BASEBALL
TAG

PLAY
DANCE
SOCCER
KICKBALL

WALK
SKI
SLED

105
Physical Activity

Coloring Pages
Free Coloring Pages, 1998
Free Coloring Pages, 1998
Free Coloring Pages, 1998
Healthy Decision Making

As with all programs it is important to evaluate how well it is working. This way you can learn what is working and what isn’t working in the program and make adjustments that will work better for you and your child.

The following questions are to help your child decide how they feel about the healthy decisions they have been making from using this handbook. Read the questions to your child and write down their answers.

There is one handout for before they do any of the activities in this handbook. The other handout is for after the activity.

As the parent look at these handouts with your child and discuss the before and after thoughts and feelings.
Healthy Decision Making:
Before activity handout

Help your child complete these questions before you start any activity from this handbook.

1. How are you feeling today?

   Happy!  Sad

2. Are you excited for this activity?

   Yes  No

3. What do you know about ............ (this is where you would put in the topic that best fits the activity you are doing, i.e. Veggie word find—you would ask "What do you know about vegetables?")
Healthy Decision Making:

After Activity Handout

The following are questions you may use to help guide a discussion with your child after completing a health activity.

1. How do you feel after the activity?
2. Are you tired or do you feel that you have more energy now?
3. What did you learn from this activity?
4. Is there anything you didn’t like about this activity?
5. Would you want to do this activity again?
Rewards can be used as a positive reinforcement to motivate children to develop healthy habits and routines. Rewards can be something that the child enjoys and lets them know they have done a good job!

Rewards can include privileges, favorite activities, or favorite items. Please see page 85 for additional ideas for rewards. Try to avoid using sweets and unhealthy snacks as rewards because this could support unhealthy habits.

Instead use incentives like being able to play longer, pick a destination to visit, or go swimming are examples of healthy rewards.
Nutrition and Physical Activity Charts
Physical Activity and Nutrition Reward Chart

Child’s Name: ____________________

Directions: Place a sticker or Circle the activities that the child completes in order to see how well they did each day.

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<th>Healthy Breakfast</th>
<th>30 minutes of physical activity</th>
<th>Healthy Snack</th>
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<td>Sunday</td>
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<td>30 minutes of physical activity</td>
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Total Points: ____________________
Healthy Eater Charts

Directions: Fill in each family member's name into the charts provided. Place a sticker or star in the square when the person eats healthy for a whole day. Add up each person's stickers or stars and reward that person at the end of the week. The monthly winner could receive a reward or privilege that you set with your child.

Examples of Prizes / Privileges:

- Prizes:
  - Pick out a toy / movie / activity / destination

- Privileges:
  - Child is a King/Queen for the day and is able to wear the crown included on page 97.
  - Child is able to pick out a favorite game to play with the family.
  - Child is able to pick out a healthy supper meal for Friday
  - Child is able to have a friend over to play
  - Child is able to have a slumber party
  - Child is able to stay up an extra 15 minutes past bedtime
**Week 1: Healthy Eater Chart**

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</table>

This week's winner is:  

118
### Week 2: Healthy Eater Chart

<table>
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<th>Day</th>
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This week's winner is: ______________________
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This week’s winner is: ____________________
### Week 4: Healthy Eater Chart

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**This week’s winner is:**

(Healthy Eater Certificate are found on page 93 & 96.)
What have I done today Chart:

Directions: Ask your child what activities they did and how long they participated in that activity each day. Then help your child write the activity down in the square underneath the day of the week. Have your child color in how many minutes they did it for. If your child participates in at LEAST 60 minutes of activity let them place a sticker or a star on that day of the week!

If your child gets 7 stickers on their chart give them a reward or privilege.

Examples of rewards and privileges can be found on page 85.
What have I done today?

<table>
<thead>
<tr>
<th></th>
<th>10 minutes</th>
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<th>40 minutes</th>
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Certificates
Certificate of Achievement

Name: ________________

is awarded this certificate for being the

Healthiest Eater of the Month

Congratulations, You’re a Star Eater! Way to Go!
Certificate of Achievement

This award is presented to:

For

_________________________
Achievement Certificate for
Nutrition Knowledge

This award is presented to:

Awesome Job!
Certificate of Achievement
for the Healthiest Eater

This Award is Presented to:

Congratulations!
You did an Awesome Job!
Crown for King or Queen of the Day

Directions: Cut out the Crown and the bands. Tape the Crown to the band in order to make a crown that fits the child’s head.

Cut out these Bands and tape them together end to end.

Then tape the Band to the sides of the crown.
References


The National Center on Physical Activity and Disability Health Promotion (2006). *Health*


CHAPTER V

SUMMARY

The purpose of this parent/guardian handbook is to promote healthy habits and routines in first grade children in the home environment that will continue with them into adulthood. The authors developed a parent/guardian handbook to provide parents with education, resources, and activity ideas to promote healthy lifestyles in their family. The parent/guardian handbook will help facilitate carryover of healthy habits and routines taught in schools to the home environment. The authors developed a parent/guardian handbook after an extensive literature review examined the need for a program in the home environment. The literature also offered ideas for this scholarly project by describing health promotion programs that have already been implemented. The literature review identified successful strategies that promoted health and were successful. These successful strategies were incorporated in this parent/guardian handbook.

The goals of this parent/guardian handbook are to provide a wide variety of educational materials and fun activities regarding nutrition and physical activity that can be implemented in the home environment. Through the use of this handbook children and parents/guardians will learn how to incorporate physical activity into their habits and routines and how to eat healthier on a daily basis. The parent/guardian handbook is presented in an easy to use manner that will promote use in the home environment.

Lastly, the goal of this parent/guardian handbook is to allow for the parent/guardian and child to evaluate their progress to determine the effectiveness of the program based on the child’s
feelings of relative mastery. Worksheets in the parent/guardian handbook are provided to assist the parents/guardians and child in measuring the outcomes and effectiveness of this program.

There are limitations that are significant in this parent/guardian handbook. First, upon completion of this parent/guardian handbook there is no formal proposal to implement this program in the community such as local elementary schools. The authors hope to provide a local elementary school with the resources to implement a home health promotion program through the use of this parent/guardian handbook.

Another limitation is that there is no formal educational material to provide to the school on how to properly implement this parent/guardian handbook. Lastly, in order for this program to be successful it would be important to have an occupational therapist (OT) as the primary educator on this program. Unfortunately many elementary schools do not have a full time OT on their staff or do not have the funds to hire another OT that could implement this program.

It is planned to propose this health promotional program to an elementary school in Grand Forks, ND. Communication and meetings with the principal have been taking place since February of 2006 as part of an educational requirement to develop a program plan. The authors hope to present the elementary school with a copy of this scholarly project.

It is concluded that this parent/guardian handbook will be a beneficial tool that parents/guardians can use to promote healthy habits and routines in the home environment. The program is designed to be easily implemented by the parents/guardians of 1st graders in the home environment. This parent/guardian handbook is unique in that it provides activities for the children as well as educational material that will assist the parent/guardian in educating their child on physical activity and nutrition.
Future recommendations are to develop a program plan and to implement this program in an elementary school. The authors plan to propose the finished parent/guardian handbook to a principal at a local elementary school in Grand Forks, ND. Upon approval from the principal and school board, Institutional Review Board (IRB) approval would need to be sought prior to implementation. It is recommended that the program be implemented as a one year pilot study. This program should be evaluated by a school-based occupational therapist in order to determine effectiveness and determine if modifications need to be made in order to achieve success. The occupational therapist would provide an in-service class for the parents and guardians to explain the handbook and how to implement it in the home environment. The occupational therapist would also provide consultation services with the parents/guardians and their first grade children to promote healthy habits into their everyday routine. A closing in-service should also be conducted with the parents/guardians at the school to determine the results and effectiveness of this program.

Currently this parent/guardian handbook has not been implemented in any home environment. Once this parent/guardian handbook has been proposed to an elementary school it would be the author's responsibility to pursue grant applications to fund a program that utilizes this handbook. Funding for this parent/guardian handbook would be needed for the cost to print the parent/guardian handbook and for paying an occupational therapist to introduce the parent/guardian handbook to parents and for consultation services.
REFERENCES


