A Study of Adolescent Nutrition
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Abstract

This descriptive study involved 60 adolescent participants (30 males and 30 females) ranging in age from 14 to 18 years of age (M = 14.88, SD = .64). The researchers selected the adolescents from a large, public high school in the Midwestern United States in order to examine the nutritional practices of teenagers. Through the use of a demographic survey, the researchers studied the general eating practices and nutritional intake of students. In addition, the researchers utilized the Food Frequency Questionnaire (Board of Trustees of Leland Stanford Junior University, 1994): a self-report questionnaire regarding specific food consumption in the past 7 days. Researchers found that the teens reported information consistent with current national statistics on the relatively poor eating behaviors and nutritional practices of teenagers.

At some point in our lives, we all experience the transitional period known as adolescence. Obviously this period of time encompasses many important areas of development. Elements of healthy adolescent development include adequate nutrition, as this can contribute to behavioral, cognitive, and social development in adolescence (Kaplan, 2004). For the purpose of this study, the term nutrition refers to participants’ self-reported eating habits. In addition, the researchers defined adolescence as the period of life from 12 to 18 years old (Thomson Healthcare Company, 2004).

Adolescence involves emerging autonomy and independence. With increasing numbers of friends outside the family and leisure time outside the home, parents and teachers experience decreasing control over what and when adolescents eat. Unfortunately, family meals become less frequent in adolescence, particularly during late adolescence (Story & Neumark-Sztainer, 2005). During adolescence, teenagers make many of their own nutritional decisions. Therefore, it isn’t unusual for parents to be unaware of what their teens eat and whether or not those food choices serve to help or harm development and overall health. Since some adolescents sometimes disagree with experts on what nutritional practices promote healthy development, adolescent food choices often have negative consequences.

One such negative consequence involves obesity. According to the American Academy of Pediatrics, obesity is considered the most common adolescent health condition. Adolescent obesity and poor nutritional habits certainly should cause alarm since they appear to be significantly associated with an increased risk of diabetes, high blood pressure, high cholesterol, asthma, arthritis, and poor health status (CDC, 2005). Over the past 20 years, adolescent obesity has more than tripled (Story & Neumark-Sztainer, 2005). Studies have shown that adolescents do not receive an adequate education about healthy dieting lifestyle practices, which can result in the use of unhealthful weight-control methods such as skipping meals, smoking, using diet pills, and vomiting. Even if these practices decrease obesity, they result in other health problems.

Fortunately, healthy alternatives exist. For example, adolescents can decrease their soda intake. Recent media attention has focused on adolescent obesity and its correlation with sweetened soft drinks offered in schools. Studies have found that the high caloric content of soft drinks contributes to childhood and adolescent obesity. Soft drink companies have actually agreed to remove their drinks from American middle schools and high schools due to existing research (Lokeman, 2006). Unfortunately, students undoubtedly choose sweetened soft drinks over milk, which serves to contribute to inadequate calcium intake. This decrease in calcium intake may result in osteoporosis (CDC, 2005). After reviewing the research, it makes sense that American parents and educators express concern about the drinking habits of teenagers, especially considering that by the time teens
reach 14 years old, 32% of American girls and 53% of American boys drink more than three soft drinks daily (Lokeman, 2006).

In addition to excessively unhealthy foods and drinks, adolescents also do not consume enough nutritious foods. Numerous studies have found that adolescents do not eat nutritious foods. Only 2% of children meet the dietary recommendations (Story & Neumark-Sztainer, 2005). These eating habits, if not corrected, can continue well into adulthood (Shaw, 1998; DeBate, Topping, & Sargent, 2001).

Although all meals contribute to the nutrition of an adolescent, breakfast significantly affects adolescent development. Years ago, many people frequently heard, “Breakfast is the most important meal of the day” (Shaw, 1998). Though still true, this statement is not as popular as in the past. An individual who skips breakfast misses some very important dietary needs that are not usually compensated for in other meals. In fact, adolescents who skip breakfast have significantly lower vitamin and mineral intake compared to those that regularly eat breakfast (Nicklas, O’Neil, & Myers, 2004). Even if an adolescent eats lunch, dinner, and snacks, the adolescent usually does not compensate for the nutrients lost when skipping breakfast (Shaw, 1998; Nicklas, O’Neil, & Myers, 2004).

Nutritional practices influence more than just physiological development. Research has found that dietary intake impacts cognitive and social development as well. For example, teachers report that adolescents who come to school hungry due to skipping meals or inadequate nutrition are more likely to exhibit apathetic, inattentive, or disruptive behaviors. In addition, several studies have found that adolescents who skip breakfast have more difficulty with mathematics, reading, and continuous performance tasks (as cited in Shaw, 1998).

Interestingly, eating meals with one’s family may increase the nutritional intake of each meal (Story & Neumark-Sztainer, 2005). Adolescents who eat with their families generally consume more nutritious meals throughout the day, compared to those who eat alone or with friends (Story & Neumark-Sztainer, 2005). Therefore, mealtimes may help provide parents with an opportunity to show their children how to eat a healthy meal (Schoenhals, 2005). Also, eating meals with one’s family may lead to slower food consumption, due in part to the conversation that usually occurs during family meals. This slower food consumption aids in nutritional intake. Some research has found that it takes approximately 20 minutes after becoming full for people to feel they cannot eat anymore (Story & Neumark-Sztainer, 2005). Therefore, eating with one’s family may help prevent overeating. Sadly, less than half of adolescents eat with their families seven times a week. In fact a third of adolescents eat, at most, only three meals a week with their families (Story & Neumark-Sztainer, 2005).

Research has also revealed that adolescents who frequently eat meals with their families are less likely to participate in at-risk behaviors (Kaplan, 2004). At-risk behaviors include smoking, drinking, fighting, and engaging in early sexual activity (Story & Neumark-Sztainer, 2005). In fact, frequent family meals contribute to both academic and emotional well-being. For example, adolescents experience higher academic achievement and exhibit fewer symptoms of depression when they eat regularly with their family (Story & Neumark-Sztainer, 2005).

In addition to the immediate impact of nutritional intake, adolescent nutrition also has an impact on later health. Research has found that female teenagers who spend more time watching television have significantly lower bone density, due in part to the lack of healthy snacks eaten during the viewing of television. Calcium intake in adolescents has noticeable effects on the bone mass of young adults (Wood, 2005). Examining the nutritional practices of teenagers is extremely important to improve the health status of our future generations. Therefore, this study is designed to describe the current eating habits of a sample of teenagers.
Method

To examine the nutritional practices in a sample of teenagers, the researchers surveyed 60 high school freshmen (30 males and 30 females) from a large, public high school in the Midwestern United States. Participants ranged in age from 14 to 18 years old (M = 14.88, SD = .64). Each student received a packet of surveys that consisted of a demographic survey and a questionnaire about their nutrition practices over the course of the past week. Some of questions from the surveys include: “How often have you eaten out in the past week,” “Are you satisfied with your body shape,” and “What do you typically eat for snacks?”

After analyzing the data from the surveys, the researchers found that these teenagers reported inadequate nutrition intake. For instance, none of the participants met all of the requirements of the food pyramid (as provided by the United States Department of Agriculture). Of the specific food groups, 11% met the minimum requirement of 2-3 servings daily of milk, 34% met the recommended 2-3 daily servings of fruit, and no students met the required minimum of 3-4 servings daily of vegetables. In addition, only 41.7% of the students reported eating 1-2 servings of fish in the past week.

Furthermore, adolescents’ nutritional practices included an excess of unhealthy foods and drinks. For instance, 29% of the surveyed students reported having 4 or more daily servings of sweets, candy, and/or chocolate. Of the surveyed students, 31% also reported consuming 3 or more soft drinks daily. The data also indicated that 50% of the students reported their most common snacks as consisting of potato chips or other “junk” foods. Twenty-five percent of the students also reported having consumed alcoholic beverages in the past week.

In addition, the researchers found that only 31.3% of the teenagers surveyed reported having eaten three or more meals with family in the past week. Sixty percent of the teenagers even reported being on some type of diet, yet only 38.3% of the teens reported dissatisfaction with their current body shape. Of the 60 surveyed participants, 7 female participants reported using unsafe dieting practices as part of their diets. When the researchers queried about dieting practices, some responses included: “I take diet pills,” “I only allow myself 700 calories per day,” and “Sometimes I throw up ‘bad’ food.” Students in the sample eat out at restaurants an average of 2.5 times per week, with a range of 0-20 times per week (SD = 2.5).

Naturally, one cannot reach too many conclusions about adolescent eating practices based on this small sample of participants. One limitation of this research study is found in the lack of questions regarding the adolescents’ academic, social, and cognitive performance. In addition, the surveys only included nutritional intake data as self-reported in the past 7 days. Some adolescents may not have remembered everything they ate, or they may have remembered information in error. Furthermore, the researchers only surveyed adolescents from one school in the Midwestern United States. Therefore, the information generated in this study does not accurately represent all adolescents’ eating behaviors.

Discussion

The findings of the present study support findings from the current national research. The data especially supported existing data regarding the areas of eating together with families, dieting, and dissatisfaction with body shape (National Eating Disorders Association, 2005). Also, students in this sample clearly do not meet current U.S. dietary guidelines, especially in terms of fruits and vegetables. The teens in this sample consume junk food more frequently than healthy snack foods, which can inhibit healthy biological development. Likewise, this also contributes to the rise of adolescent
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obesity, as does eating out at restaurants more than once a week, which many participants in the current study indicated.

This study found the adolescents rarely, if ever, consumed fish. This causes a potential problem, since fish provides individuals with a large source of omega-3 fatty acids, which have been found to increase an individual’s intellectual capability. Research has found that omega-3 fatty acids can help manage and reduce learning disabilities and Attention Deficit Hyperactivity Disorder (ADHD). Providing adolescents with multivitamins and omega-3 fatty acids can also increase IQ scores of adolescents (Schoenhals, 2005).

Particularly alarming was the number of teenagers who reported using unsafe dieting practices and drinking alcohol regularly. Eating disorders present a real danger. According to the National Eating Disorders Association, 24% of girls aged 16 to 19 have used unsafe methods to lose weight. The reported dieting methods of the females in this survey seem to be consistent with these statistics.

Suggestions

Even though the study described numerous poor nutritional practices in adolescents, parents can certainly reduce these problems. Parents should encourage family meals at least once a day. Even if only one parent can attend each meal, the benefits of family mealtime are evident. Adolescents given such an example may be less susceptible to peer influence regarding poor nutrition. Peers may influence a teenager’s eating patterns. For example, when a teen’s friends perceive drinking milk or eating vegetables as “not cool” and choose to drink soft drinks and eat sweets instead, their eating behaviors influence those in the peer group (Kaplan, 2004, p. 85). Providing an adolescent with good nutritional guidelines and regular family meals may counteract the influence of their peers. In addition to healthy meals and snacks, some doctors suggest that adolescents take daily multivitamins and/or supplements to reduce deficits in their nutrition. For example, even though some adolescents may not eat fish, they can still receive the benefits of omega-3 fatty acids from supplements.

Parents may also promote breakfast consumption. Adolescents frequently report that they lack time in the morning to eat breakfast (Shaw, 1998). Simply requiring a teen to get up earlier in the morning, however, may create other problems, because adolescents generally require at least 9 hours of sleep each night (Thomson Healthcare Company, 2005). It might help to prepare a healthy breakfast the night before, so that an adolescent does not have to prepare, or wait for someone else to prepare, breakfast in the morning. Additionally, many quick healthy breakfast choices exist. A hard-boiled egg, an apple, and a glass of milk make for a healthier breakfast that an adolescent can consume on the go (Schoenhals, 2005).

Further, since adolescents learn from their families, each family member should try to set a good example for healthy eating (Thomson Healthcare Company, 2005). This can include preparing healthy family meals or limiting unhealthy snack consumption, or preparing healthy meals at home and limiting eating out to once a week or less. A parent doesn’t even need to be present to encourage healthy eating. Stocking the kitchen with mostly nutritious foods will impress upon adolescents the importance of healthy eating while limiting poor choices. Encouraging healthy eating does not mean severely criticizing poor eating habits, however. Negative criticism may cause the teen to begin or continue unhealthy diets to lose weight.

Although researchers have provided some information about adolescent nutrition, numerous other research studies exist. To learn more about this area of research, consult the United States Department of Health and Human Services Centers for Disease Control and Prevention at
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www.cdc.gov/HealthyYouth/Nutrition for current research and references. The U.S. Department of Health and Human Services also offers additional information from the CDC Division of Adolescent and School Health via e-mail at HealthyYouth@cdc.gov.

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