

**Breakfast Habits of Adolescents:**

**Towards Meaningful Lessons**

by

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A thesis submitted in partial fulfillment of the requirements for the degree of

Master of Arts

in

The Faculty of Graduate Studies

(Department of Curriculum Studies)

We accept this thesis as conforming to the required standard

The University of British Columbia

November 2002

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Date October 9 2002

## **Abstract**

*Purpose:* This study examines the influences and reasons that contribute to the breakfast habits of adolescents, aged 13-14 years.

*Methodology:* Eighty-two boys and seventy-one girls completed a questionnaire that inquired about their breakfast eating habits. Statistical analysis was conducted to find frequency counts and cross tabulations between factors that influence eating habits. From this group of 153 students, seventeen students participated in individual tape-recorded interviews that discussed their typical breakfast habits. Influences and reasons for the breakfast habits were discussed. Meanings for breakfast, health and nutrition were discussed as well.

*Findings:* From the questionnaire, 130 students (69 boys and 61 girls) reported having breakfast on the questionnaire day, and 70.6% of the students reported having breakfast *almost always* during the week. The breakfast eaters reported making breakfasts that consist of cereal and milk and the interviewed students had similar habits. Presence of another person did not influence the variety of food consumed. A significant difference was noted when the breakfast was selected and prepared by mothers, when the number of food groups increased to three, usually through the addition of the meat and alternative group. The mothers most often made breakfast for their sons. Fathers had a low involvement.

The interviewed students talked about quick, convenient weekday breakfasts and more elaborate family breakfasts on the weekend. Fifteen of the students thought of their

diets as healthy but reported that they could improve them. Students reported what breakfast means to them by describing traditional breakfast foods. The foods described also matched their favourite breakfasts and their weekday breakfast. Students talked about general health and nutrition ideas such as variety and moderation, and healthy and unhealthy foods. Students expressed that the advantages of breakfast eating outweighed the disadvantages and they expressed that they would continue to eat breakfast in the future.

*Conclusion:* Students are making breakfasts that are quick and convenient on weekdays that usually consist of cereal and milk. Weekend breakfasts usually contained more food groups and are shared with family and friends. The main influence on their breakfast is who selects and prepares their breakfast. Students stated that the advantages of breakfast eating outweigh the disadvantages. Students suggested that food is associated with age or stage and has different meanings at these different times.

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## **Acknowledgement**

I would like to express my sincere appreciation to my advisor, Dr. Linda Peterat. Throughout this journey, she has been encouraging and supportive in many ways, especially through the revision stage of this thesis. I would also like to thank my committee members, Dr. Gwen Chapman and Dr. Cynthia Nicol, for their support and encouragement through probing questions and insightful comments. Truly they are remarkable mentors for whom I have deep respect and admiration.

I would like to thank my family, especially those who cared for Alyson while I was away at UBC during the summers. Knowing Alyson was in caring, loving hands made my absence less stressful. I am deeply grateful for my family and friends, old and new, who have encouraged me especially during this last year. I affectionally know you as my unofficial committee members.

I would like to dedicate this thesis to my dear daughter, Alyson. May you always find and know truth.



## **Chapter One**

### **1. Introduction**

Breakfast has been termed the most important meal of the day. This statement was probably spawned from popular cultural beliefs as well as research discovering physiological and psychological benefits (Reid & Brownrigg, 1998). Despite this commonly held belief, breakfast eating is not always practiced (Siega-Riz, Popkin & Carson, 1998).

It is believed by many nutrition educators, although there is not strong evidence, that food habits established in adolescence will be the foundation for future food practices (Chapman, 1992). Therefore, poor eating habits in the teen years can lead to similar habits in adulthood, resulting in health problems related to nutrition.

Since fostering healthy eating habits is important and breakfast eating is part of healthy eating habits, I pose the following research questions:

- What are the breakfast eating habits of early adolescents?
- What are the influences that affect their breakfast habits?
- What reasons do they give for eating or not eating breakfast?

Research should be useful in three ways. It should be relevant to policy; useful to practitioners; and contribute to knowledge (Marshall & Rossman, 1989). In terms of policy, there are many school meal programs that operate throughout the country. Breakfast for Learning through the Canadian Living Foundation is one such program.

Agreement between researchers indicates the importance of breakfast in learning (Papamandjaris, 2000). Therefore, it is in the best interest of all to construct supportive environments for student learning. If students are well nourished, learning can take place, self-esteem and social skills will develop and in the long term productive healthy citizens will emerge. This research contributes to the understanding of adolescent eating patterns; and hopefully to understanding ways we can help adolescents improve their eating habits. The findings of this research may assist school meal programs to establish policy more appropriate to students' eating patterns. Food companies may benefit by developing new products that can enable students to practice good nutrition in the manner that best suits their way of living.

As an educator, I am interested in better understanding the students I teach and constructing lessons that are more meaningful to them. It is my belief that educators have an obligation to understand students' perspectives and integrate this understanding with their knowledge and practice.

This research helps fill gaps in current knowledge. In my literature review I delineate three topic areas that exist regarding youth and breakfast habits and that relate to my research questions. They are (a) nutrition and breakfast eating habits; (b) influences on breakfast eating habits; and (c) reasons for or meanings of breakfast eating habits. The latter area is relatively new in research and researchers are beginning to understand how adolescents are thinking about food and their motivation around it.

## Chapter Two

### 2. Review of the Literature

**“Breakfast:** *n.* The morning meal. – *v.t.* 1. To furnish with a breakfast. –  
*v.t.* 2. To eat breakfast.”

(Funk & Wagnalls Canadian College Dictionary, 1989, p. 168)

Breakfast eating habits have been a focus of research for about fifty years (McIntyre, 1998). Yet, after reading some of the literature there are many aspects that remain unclear and not questioned. Initially research focussed on observable behaviour of breakfast, what was eaten and when. Understanding why people eat or do not eat breakfast, why they eat it at a particular time, and why they eat what they do has not been researched as extensively as the observable behaviours of breakfast. As a beginning researcher, I had two main goals for this literature review: (1) to establish what is already known about breakfast eating habits among adolescents, and (2) to determine what still needs to be known in this area to assist in developing more relevant lessons for adolescents.

#### 2.1 Framing the Review

I am a middle class Caucasian female who has taught Home Economics in the southern interior of British Columbia since 1993. My initial years in post-secondary education were based in science with an interest in nutrition. I particularly developed an interest in the socio-psychological aspects of eating and food. I am a breakfast eater, in fact I enjoy going out for breakfast more than going out for dinner. Therefore, I am

curious about people who or on occasion are breakfast skippers. As well, I have a sincere interest to understand my students better. In the past I have taught grade eight students about nutrition and healthy eating. One part of my lesson is stressing the importance of eating breakfast; however, the students seem to be disengaged with this topic. Perhaps they feel that it does not apply to them. I have the sense that I am not connecting with them, they think differently about breakfast.

The exploration of literature began from the following research questions: what are the breakfast habits of early adolescents? What are the influences on breakfast habits? What reasons do they give for eating or not eating breakfast? In order to provide meaningful answers to these questions, I determined that I needed to examine quantitative and qualitative research to try to understand the depth and breath of adolescents' breakfast eating habits. The quantitative research will help uncover what adolescents are eating for breakfast; their general eating habits; and how these patterns influence their overall nutritional status. The intent was not to review articles that covered the benefits of breakfast since much of the research is based on this truism. For example, the benefits are weight loss, cholesterol lowering, an increased energy and improved cognitive functioning (Reid & Brownrigg, 1998). These benefits of breakfast are usually stated from an observer's viewpoint. However, this body of research does not hear from the actual participants and ask them to define the benefits from their experience or point of view. Furthermore, qualitative research would help to understand the impacts of environmental factors such as physical, social and personal on adolescent eating habits. I selected articles that were qualitative and depicted trends in adolescents' eating

habits as well as personal and introspective articles. By collecting a selection of articles, I was able to get a better understanding of the forces that come into play with breakfast eating habits.

## **2.2 Methodological Approach**

My literature search began using the ERIC database and a few recognized descriptors such as breakfast eating habits and adolescents. At the beginning it was difficult to find articles on breakfast eating habits that did not emphasize school meal programs, eating disorders and general lifestyle behaviours. However, through continued computer searches as well as numerous hand searches through key journals, twenty-four research articles and twelve papers were found. The articles were selected because they focused on breakfast habits specifically. My initial criteria for articles included selecting articles in which the participants had the same cultural background as the students I will study: North American (Canadian), predominantly Caucasian adolescents.

Through reading of the related studies, I categorized three main research perspectives related to this topic: (1) nutrition and eating habits, (2) influences on eating habits, and (3) reasons for eating habits. Articles classified as “nutrition and eating habits” examined the nutritional level of the diets and determined eating patterns. These articles, in my view, were analytical and objective. “Influences on eating habits” articles usually did not include children/adolescent’s views and the research was based primarily on questionnaires. When reading these articles, I did not get a strong sense that the participants were speaking directly about their experiences with food. Finally, articles

stating the “reasons for eating habits” provided participants’ voice and reported mainly on research interviews. These articles addressed personal connections with food. Articles did overlap between influences and reasons; however, I grouped them as I did in connection to my research questions as well.

The following review is divided into three sub topics and includes an analysis and synthesis of the literature. Refer to *Appendix A: Articles Reviewed* for an overview.

## **2.3 Results of the Review**

### **2.3.1 Nutrition and Eating Habits**

Many research articles refer to a study published in 1985 titled *Appalachian adolescents’ eating patterns and nutrient intakes* (Skinner, Salvetti, Ezell, Penfield, & Costello, 1985). Therefore, although it is a dated study, it was a good place to start. This study reports on findings of 24-hour food records kept by 114 boys and 111 girls; aged 16-18 years. Ninety-four percent were Caucasian and six percent were African-American. Great effort was used to define the terminology of the study as well as the subjects who participated in it. Breakfast, lunch, dinner and snack patterns were examined; and, similarities and differences were compared between boys and girls.

The majority of the students ate breakfast at home consuming breads and cereals that contributed in consumed nutrients to “less than 25% of the RDAs for both genders were energy, iron and niacin and, additionally, protein, calcium, and vitamin A for girls” (Skinner et al., 1985, p.1094). Differences were noted in boys’ consuming more dairy

products during breakfast than girls who consumed more bread and cereal products. It also appears that breakfasts prepared by their mothers (interesting to note that it did not say father or care giver) were higher in nutrients and “included typical breakfast foods such as meat, eggs, and breads and cereals” (Skinner et al., 1985, p.1096). This study reported that thirty-four percent of the adolescents skipped breakfast on the day of the survey, and found there was no significant relationship between gender and breakfast skipping, contrary to other articles (Miles & Eid, 1997; Nicklas, Bao, Webber & Berenson, 1993). The breakfast skippers recorded lower intakes of calories and nutrients. The researchers state:

There were both quantitative and qualitative differences in daily intakes between those who ate breakfast and those who did not, suggesting that those who consumed breakfast made better food choices throughout the entire day than breakfast skippers and that those who skipped breakfast did not compensate at other eating occasions. Thus, breakfast omission may be an indicator of poor food habits among adolescents. (Skinner et al., 1985, p. 1096)

A number of studies investigated adolescents' eating habits in terms of *when* and *what* they eat. This type of research is concerned that adolescents can acquire as much as 15% of their adult height and 50% of adult weight during adolescence and therefore, their eating habits influence the health status of their adult years (Chicoye, Jacobson, & Landry, 1997). One study that compared nutrition knowledge with behaviour found that boys are twice as likely to eat breakfast as girls although the authors did not indicate if

nutrition knowledge was associated with breakfast eating (Miles & Eid, 1997). However, a more detailed research paper indicated that more Caucasian, 10 year old girls ate breakfast at home than African-American 10 year old girls, concluding that ethnicity is related to breakfast consumption (Nicklas, Bao, Webber, & Berenson, 1993). This study of 467 participants also confirmed that breakfast makes a significant contribution to daily nutritional intake as suggested from other studies (Nicklas et al., 1993). However, another study based on a survey of French adolescents indicates that as age increases so does snacking, skipping meals and acceptance of foreign foods (Ton Nu, MacLeod, & Barthelemy, 1996). This could be due to social and cognitive influences. This study also concluded that likes and dislikes were homogeneous in all classes and the main differences between ages were not with class but with gender (Ton Nu et al., 1996). Breakfast skipping was reported to be a common practice among grade 8-10 non-dieters and dieters although more frequent among the latter (Perry-Hunnicut & Newman, 1993).

In a brief overview, it is difficult to compare studies directly because of the different demographics of the participants; however, there appears to be a significant body of knowledge about adolescent nutrition and eating habits. From the literature reviewed, what appears to be known is what adolescents are eating, the reasons for food likes and dislikes, and general eating patterns. These eating patterns are influenced by gender and less by age. As stated before, breakfast skippers do not make up their nutrient and energy requirements for the day. Therefore, breakfast does influence overall nutritional status.



What is not specifically defined is what is an adequate breakfast. Although the United States does, Canada does not have a dietary guideline on what an adequate breakfast is for school-aged children (McIntyre, 1998). As well, the definition of breakfast is based on a Caucasian middle class North American culture. These assumptions have not been challenged. Little research is conducted on different cultural practices and the variety of types of adequate breakfast.

### **2.3.2 Influences on Eating Habits**

While there is a vast body of literature examining the eating habits of youth in terms of when and what they eat, it is important to try to understand the influences on these habits. One possible influence is education. Nagel and Jones (1993) state that home economics teachers can be instrumental in health education, especially in preventing eating disorders. Achterberg (1988) states in her paper that all nutrition educators should examine their accountability to the situation – are teachers really teaching and are students really learning? She also emphasizes that there are multiple perspectives in conducting qualitative research. Examining influences on eating habits can be qualitative in nature (Achterberg, 1988).

Warwick, McIlveen, and Strugnell (1997) report that food choice is influenced by physical, social and psychological factors. They discuss other frameworks that attempt to explain food choice, finalizing with the model put forth by Khan that incorporates all factors. They summarize Khan's model that food habits, acceptance and preferences are influenced by the following factors: intrinsic; personal; cultural and religious; biological,

physiological and psychological; extrinsic; and socio-economic (Warwick, et al., 1997). Through observations and questionnaires, they inquired about influences of food choices of 105 Northern Irish adolescents, aged 9-15 years. They found that parent occupation did not influence food choices, snacking was popular, girls made more health conscience choices, and advertising has an impact on choosing food. Crockett and Sims (1995) wrote a conference paper that addresses some of the influences on eating habits such as: demographics and socio-economic; food environment (what and where food is consumed); food consumption and patterns (who food is consumed with); setting and food programs for pre-school, school-aged children and adolescents; and children as consumers (Crockett & Sims, 1995).

Siege-Riz, Popkin, and Carson (1998) conducted a large study of 24,363 respondents, ages 1- 18 years over a time period of 1965-1991 using dietary food recall. There was a significant decline in breakfast consumption for all age groups: preschoolers by 5%; children aged 8-10 years by 9%; and adolescents by 13%. The greatest decline was among adolescent girls by 19.7% between 1965 and 1991. They concluded, this decline in breakfast consumption may be influenced by demographic changes such as an increase of women in the work force; increase in divorce rate; increased births out of wedlock; and increase of single-parent households headed by women and increases in poverty (Siege-Riz, Popkin, & Carson, 1998). This study suggests that low economic status influences food purchases and single parent households influence the amount of parental involvement in preparing breakfast. One article that examined family interaction related to food and nutrition and parent nutrition education found that mothers who were

employed part-time showed the most positive attitudes towards nutrition and the highest family interaction scores (Gillespie & Achterberg, 1989).

Parental influence on children's dietary habits is frequently noted in the literature. Children's food preferences, intakes and adiposity are outcomes of learned habits through social and psychological contexts; therefore, parental influences are strong in determining children's food choices (Birch, 1998). In contrast, one study that used three focus groups each with five parents found that the parents perceived they had little control over their children's eating habits as children got older (Rainey, Kemper, Poling, Tucker, & Jordan, 1998). In terms of gender differences, one study found that although women typically tend to be the gatekeepers of menu planning, shopping and cooking; adolescents perceived that their fathers were more influential in initiating healthy changes in the family diet (De Bourdeaudhuij, 1997). Likewise, there is support that both the children and parents educate and influence the family dietary patterns. As the family ages, the influence on family dietary habits almost becomes shared between the parents and children (Lemke, Whiting, McKay, & Bailey, 1998). Other researchers found that friends have little influence over food choices and influences are different for boys and girls (Cardamone, Cusatis & Shannon, 1996; Feunekes, de Graaf, Meyboom, & van Staveren, 1998).

Other influences on consumer food choices are economics and media that create the dilemma between known short-term costs such as time, money and taste and unknown long-term costs such as the benefits of healthy eating (Blaylock, Smallwood,

Kassel, Variyam, & Aldrich, 1999). With the development of technology, the past century has seen an increase in media information to families through television, the internet and magazines. With this in mind “why (do) Americans with an abundance of nutrition information, high incomes and low food prices (not) eat better”? (Blaylock et al., 1999, p. 271). The knowledge of the influences on eating habits can structure a better understanding of the reasons for adolescents’ food choices.

In this section titled *Influences on Eating Habits*, the influences are defined as environmental structures that are more physical and/or social. Family life does influence children’s eating habits more than friends. Children and adolescents believe that their parents influence their eating habits while parents’ perceptions of their own influence is not as strong, especially as their children age. It is interesting to know *in what ways* children think they influence family eating habits and how their parents perceive the children’s influence; what is thought and what is practiced. Likewise, economics and media are stated as influences on breakfast habits. However, we do not know how these are thought about and what is practiced as a result by adolescents.

### **2.3.3 Reasons for Eating Habits**

Neumark-Sztainer, Story, Perry and Casey (1999) categorized the reasons for food choices of 3,632 American eighth and tenth graders, majority Caucasian and equally represented by girls and boys. The reasons were classified into three levels of importance:

Level 1: Factors perceived as most important

- Hungry/food cravings
- Appeal of food (primarily taste)
- Time
- Convenience

Level 2: Factors of secondary importance

- Availability
- Parental influence
- Perceived benefits
- The situation

Level 3: Factors perceived as less important (but could be primary factors for some students)

- Body image
- Habit
- Cost
- Media
- Vegetarian lifestyle

(Neumark-Sztainer et al., 1999, p.933)

Age and education level appears to influence food choices of young adults; however, depending on their resources, money and time influence as well (Betts, Amos, Keim, Peters, & Stewart, 1997). For example, from 1475 respondents to a questionnaire, graduate students were more likely to emphasize nutrition as a major factor, whereas college students tended to stress convenience and high school graduates not attending school stressed satiety value (Betts et al., 1997).

Furthermore, how adolescents associate food in relationship to themselves contributes to food habits. For example, young adults who identified themselves as exercisers report eating more nutritious foods than those who identified themselves as non-exercisers (Georgiou, Betts, Hoos, & Glenn, 1996). Adolescents associate healthy foods with losing weight, family, home and meals; whereas *junk* foods are associated with gaining weight, friends, independence and being away from home (Chapman, 1992;

Chapman, & Maclean, 1993). These studies suggest that the saying, 'you are what you eat', has cultural as well as socio-psychological meaning.

Articles specifically examining breakfast habits and skipping of breakfast were limited. One study that interviewed Australian adolescents found that breakfast skipping is due to personal choice rather than a shortage of food (Shaw, 1998). From a survey of 699 Australian 13 year olds, the reasons cited that the participants skipped breakfast were lack of time and not being hungry in the morning. This study found that girls skipped breakfast more than boys, supporting previously articles (Shaw, 1998).

Chapman, Melton and Hammond (1998) interviewed college and university British Columbian students to understand their reasons for eating habits, focusing particularly on their breakfast patterns. Weekday breakfast needed to be small, quick meals, while weekend breakfasts occurred later in the day and were more elaborate in terms of cooking and type of food (Chapman, Melton, & Hammond, 1998). Breakfast skippers stated that they needed more time to sleep, had no time to prepare or eat, lacked appetite in the morning, wanted to lose weight or disliked the available food (Chapman et al., 1998). Other barriers to breakfast eating were family food purchases, cost, cooking and storage facilities (Chapman et al., 1998). The majority of the 48 participants, however, agreed that breakfast was important to provide energy for the day (Chapman et al., 1998)

The framework constructed by Neumark-Sztainer et al. (1999) is very insightful regarding the eating habits of adolescents. However, specific breakfast habits and the reasoning and meaning for them are limited. Only half of the reviewed reports had early adolescents as subjects of study. Therefore, more information is needed on that age group. Age, education and gender were found to be influences on decision-making regarding breakfast. As indicated previously, educated young adults were more likely to make dietary decisions based on health while younger less educated adults more frequently based their decisions on convenience and satiety value. Gender differences arose as well; women and men relate to food in different ways. This difference appears to begin in early adolescence. Finally, personal self-perception or identity appears to be critical in decision-making.

More studies about early adolescents' breakfast eating habits, the influences and the reasons for them are needed. Special attention to gender differences and to individual differences such the relationship between identity and breakfast eating habits are needed.

## **2.4 Conclusion**

Finally, the articles echoed a common desire to create and deliver effective nutrition education to all members in children lives – parents, caregivers, school administrators and teachers, health care providers, as well as the children is themselves (Ezell, Skinner, & Penfield, 1985; Nagel, & Jones, 1993; Seaman, & Young, 1996; Sullivan, Gottshall-Pass, Joudrey, & Druhan, 1995)

More research is needed to understand Canadian adolescents' breakfast eating habits. Many of the above articles focus on young adults or children, or general eating habits. The articles suggest that there are differences between these age groups. However, without belittling or dismissing the importance of the research so far, it does provide a strong foundation for understanding the complex social and psychological aspects of adolescent life.



## **Chapter Three**

### **3. Research Design/Method**

#### **3.1 Definitions**

In this study breakfast was defined as anything eaten or drunk before the first class in school. This was helpful since some students do not eat breakfast in a traditional manner, sitting at the kitchen table, but rather, they eat on the way to school or snack just before class. Special care was given not to use the word “breakfast” in the questionnaire’s probes and interviews in order to avoid misunderstandings about what was being asked. The word breakfast will be used loosely throughout this paper and was used only with the participants if they used the word. For example, students would define whether or not they had breakfast, brunch or lunch on the weekend.

#### **3.2 Assumptions and Limitations**

The notion of being able to change someone from a specific behaviour is ludicrous. In order for sustained change to occur, the person must embody the knowledge and take action in creating a new habit (Dewey, 1902). Any new knowledge, obviously, must have some value to the person in order for it to be embraced. With these assumptions in place, it is clear that a qualitative study via exploratory interviews can unearth deeper meanings of breakfast in the lives of the adolescents. In order for me to improve my practice through developing more meaningful lessons, I must understand the perspectives of the students that I teach. Corey (1949) emphasizes this point by saying “the investigator is more interested in the particular subjects he is studying and less

interested in the total theoretical population of which these subjects constitute some sort of sample” (Corey, 1949, p.510).

The main limitation of this study is the sample size. It is not my intent to gather a large volume of data to be statistically analyzed. It is however, my goal to develop a deeper insight into the breakfast practices of the students at the school where I teach. The school’s city has a population of 96 000. The school is a community school which students either walk or bus to. The demographics of the community surrounding the school are mainly Caucasian, middle class families. Many of the parents of the students are professionals. From a possible 153 grade eight students who completed the questionnaire, I interviewed seventeen students about their breakfast habits, the influences surrounding them, and the reasons for them.

### **3.3 Data Collection and Analysis Procedures**

This research includes a questionnaire and individual interviews. With the research questions in mind, the questionnaire was developed and then revised during the proposal stage. Afterwards, the questionnaire was pilot tested with two students, same age as the participants, who did not attend the participating school. They found the questionnaire easy to understand and complete. The interview questions were adapted from a similar study examining breakfast habits of college and university students (Chapman et al., 1998). The interview was then pilot tested with the same two students; the recorded interview was listened to and notes were made to clarify or simplify the some questions.

In October 2001, I went into the six grade eight *homeroom* classes, introduced the study and invited students to participate. This was to ensure that the same information about the study was given to all students and I was able to answer any possible questions at the time. The questionnaire required ten minutes to complete (see Appendix B). Completion of the questionnaire was considered to be consent to be surveyed; all students present completed the questionnaire. The population of grade eight students was one hundred and fifty-eight at the participating school. One hundred and fifty-three students completed the questionnaire. Five did not complete the questionnaire due to absences for the day. Four students who reported having breakfast on the day the questionnaire was given did not complete their questionnaire fully; either not describing what they had or the environment that they had it in.

The data from the questionnaire was then coded and analyzed using the SPSS program at the University of British Columbia's Education Computing Lab. The data analysis was treated in three sections. From the entire group, the demographics and the frequency counts were collected. The entire group was then classified and analysed into two groups: those students who did not eat breakfast and those who did eat breakfast on the questionnaire day.

Afterwards, consent forms (see Appendix C) for the interviews were distributed to all students. Consent forms were returned to the homeroom teacher or to the researcher. A total of forty-eight were returned; 17 consented and 31 did not. From the consent

forms, participants were selected for the individual interviews. Due to the low response rate for interview participation, seventeen volunteered, the proposed selection procedure was not followed. The sampling was to be purposeful. From the consent forms, groupings were to be classified according to those who classify themselves to eat breakfast *almost always* (6-7 times per week), *sometimes* (3-5 times per week), *rarely or never* (1-2 times per week). This grouping pattern would have been conducted for girls and boys separately. From these groups equal representation would have been selected. However, those who volunteered to participate were interviewed.

The individual interviews were conducted at an agreed upon time. They were conducted at the school, in the researcher's classroom. This room was selected due to its' availability, privacy, and my perception that the students were familiar with the classroom. It was important to make the students feel comfortable and familiar with the surroundings during the interviews; snacks and refreshments were provided during the interview.

The semi-structured interviews probed students' eating habits, influences on them and reasons for them and were tape-recorded (see Appendix D). Verbatim transcripts of each interview were analyzed for themes and patterns as well checked for accuracy. A cut and paste method was then used on the transcribed interviews, grouping responses into categories such as weekday breakfasts, weekend breakfasts, factors affecting (e.g. bedtime snack and parents' habits), assessment of their diet, favourite breakfast,

meanings of breakfast, nutrition and health, advantages and disadvantages of breakfast, and changes over time.

### **3.4 Methods of Verification**

In order to ensure trustworthiness of the data, several strategies were used for verification. To establish credibility, multiple data gathering methods was used such as the questionnaire and interviews. The analysis of the questionnaire were checked and reviewed with Dr. M. Trache, the education statistical consultant at the University of British Columbia and a committee member, Dr. G. Chapman. Confirmability was achieved with a critical mentor, Dr. G. Chapman, who audited the methods used and read some of the summaries to verify interpretations during April 2002 after the interviews were completed.

## Chapter Four

### 4. Results

#### 4.1 Questionnaire Results

The number of students completing the questionnaire was 153 of which 82 (53.6%) were boys and 71 (46.4%) were girls. Table 1 shows that a majority (70.6%) of the students *almost always* (6-7 times per week) ate breakfast. However, there was a statistically significant difference between boys and girls who reported to eat typically this often. Boys were more likely to eat breakfast *almost always* (6-7 times per week) than were girls. However, eighty-five percent of the surveyed students ate breakfast on the morning the questionnaire was administered, there was no statistically significant difference between boys and girls.

**Table 1**

*Breakfast Consumption, Weekly and on Questionnaire Day (n=153)*

	Boys n=82(53.6) no. (%)	Girls n=71(46.4) no. (%)	Total n=153(100) no. (%)
How often is breakfast consumed in a week			
Always <sup>a</sup> *	66(80.5)	42(59.2)	108(70.6)
Sometimes <sup>b</sup>	10(12.2)	22(31.0)	32(20.9)
Rarely or never <sup>c</sup>	6(7.3)	7(9.9)	13(8.5)
Ate breakfast on questionnaire day	69(84.1)	61(85.9)	130(85.0)

<sup>a</sup> 6-7 times per week; <sup>b</sup> 3-5 times per week; <sup>c</sup> 0-2 times per week; \* p = 0.010

Data on students were categorized into two groups: breakfast eaters and non-breakfast eaters. The breakfast eaters were those who ate breakfast on the questionnaire day while the non-breakfast eaters did not. These two groups were then compared to their reported weekly breakfast habits (see Table 2). Of the 23 non-breakfast eaters, 9 students (39.1%) reported that they *sometimes* (3-5 times per week) have breakfast, although there was not significant difference noted between non-breakfast eaters and how often they weekly consume breakfast. The boys reported either that they *almost always* (6-7 times per week) have breakfast or *rarely or never* (0-2 times per week) have breakfast (five boys for each category), while 6 of the 10 of the girls reported that they *sometimes* (3-5 times per week) have breakfast.

Sixty-nine (84.1%) boys and 61 (85.9%) girls reported having breakfast on the day the questionnaire was administered. For the breakfast eaters, 102 students (78.5%) reported that they *almost always* (6-7 times per week) have breakfast. These results suggest that whether or not they had breakfast that morning was in keeping with their weekly breakfast habits.

**Table 2*****Comparison of Breakfast Eaters and Non-Breakfast Eaters<sup>e</sup> to Their Weekly Habits***

	Boys	Girls	Total
	no. (%)	no. (%)	n=153
Breakfast eaters	69(84.1)	61(85.9)	130(85)
Always <sup>a</sup>	61(88.4)	41(67.2)	102(78.5)
Sometimes <sup>b</sup>	7(10.1)	16(26.2)	23(17.7)
Rarely or never <sup>c</sup>	1(1.4)	4(6.6)	5(3.8)
Non-breakfast eaters	13(15.9)	10(14.1)	23(15)
Always <sup>a</sup>	5(38.5)	1(10.0)	6(26.1)
Sometimes <sup>b</sup>	3(23.1)	6(60.0)	9(39.1)
Rarely or never <sup>c</sup>	5(38.5)	3(30.0)	8(34.8)

<sup>a</sup> 6-7 times per week; <sup>b</sup> 3-5 times per week; <sup>c</sup> 0-2 times per week,



#### 4.1.1 Non-breakfast Eaters

Non-breakfast eaters (23) were composed of 13 boys and 10 girls. When asked why they did not have breakfast that morning 47.8% responded *other* reasons than slept in, not hungry or nothing interesting (see Table 3). Stated reasons for this category were doing activities such as homework or practicing an instrument; not feeling well; lack of time and forgetting to. A larger number of girls (11 in total) selected this category while a larger number of the boys (6 in total) selected the not hungry category. No significant difference was found in these results. It is important to note that the students were able to select more than one category.

**Table 3**

*Non-breakfast Eaters' <sup>a</sup> Reasons for Not Eating (n=23)*

	Boys n=13 no. (%)	Girls n=10 no. (%)	Total n=23 no. (%)
Slept In	1(7.7)	2(20.0)	3(13.0)
Not Hungry	6(46.2)	3(30.0)	9(39.1)
Nothing Interesting	4(30.8)	1(10.0)	5(21.7)
Other	5(38.5)	6(60.0)	11(47.8)

<sup>a</sup> did not eat breakfast on questionnaire day

#### **4.1.2 Breakfast Eaters**

In total 130 students ate breakfast on the morning the questionnaire was given; 69 boys and 61 girls (see Table 1). Students were asked to describe what they ate or drank, who selected and prepared it, where they consumed it, and who was with them. Using the Canada Food Guide as a reference, almost half of the students (47.3%) indicated they had food from two different food groups (see Table 4). The food groups that they selected most often were grain products (79.1%); milk products (60.5%), vegetables and fruit (41.1%), and meat and alternatives (12.4%) (see Table 5). A significant difference between boys and girls selecting meat and alternatives was found (Fisher Exact Test = 0.017,  $p < 0.05$ ), meaning that boys were more likely than girls to eat from the meat and alternative food group (see Table 5). In Table 6, specific food selected supports the finding that two different food groups were selected. Cereal and milk were selected 43.1% of the time from the breakfast eaters (129, one student did not complete the questionnaire fully).

**Table 4*****Number of Food Groups Consumed by Breakfast Eaters (n=129)***

	Boys n=68 no. (%)	Girls n=61 no. (%)	Total n=129 no. (%)
Number of food groups			
Zero	5(7.4)	6(9.8)	11(8.5)
One	10(14.7)	13(21.3)	23(17.8)
Two	28(41.2)	33(54.1)	61(47.3)
Three	24(35.3)	8(13.1)	32(24.8)
Four	1(1.5)	1(1.6)	2(1.6)

**Table 5*****Type of Food Groups Consumed by Breakfast Eaters (n=129)***

	Boys n=68 no. (%)	Girls n=61 no. (%)	Total n=129 no. (%)
Type of food groups			
Grain Products	58(85.3)	44(72.1)	102(79.1)
Vegetables & Fruit	27(39.7)	26(42.6)	53(41.1)
Milk Products	44(64.7)	34(55.7)	78(60.5)
Meat & Alt. *	13(19.1)	3(4.9)	16(12.4)
Other Foods	15(22.1)	14(23.0)	29(22.3)

\* p = 0.017

**Table 6*****Breakfast Eaters' Selected Food Items (n= 129)***

	Number	%
Cereal & milk	56	43.1
Juice	36	27.7
Milk	29	22.3
Toast	21	16.2
Fruit	20	15.4
Non traditional food &/or condiment	17	13.1
Bagel, muffin, frozen waffle &/or hash browns	17	13.1
Water	15	11.5
Beverage	9	6.9
Sweet	6	4.6
Pancake &/or French toast	5	3.8
Egg	5	3.8
Peanut butter	4	3.1
Oatmeal	2	1.5
Bacon	1	0.8
Yogurt	1	0.8

Examining the environment in which they ate breakfast, students indicate that 83.1% of them ate breakfast in the kitchen (see Table 7), however, specific information such as whether or not it was at a kitchen table or at a counter sitting or standing was not indicated. Others ate watching TV (4.6%), in the living room (3.8%), student's bedroom (3.1%), in transport (3.1%), or a variety of locations (3.1%).

**Table 7**

***Location of Eating by Breakfast Eaters (n=130)***

	Number	%
Kitchen	108	83.1
Watching TV	6	4.6
Living room	5	3.8
Student bedroom	4	3.1
In transport	4	3.1
Variety <sup>a</sup>	4	3.1
At school	1	0.8

<sup>a</sup> at a counter, on the floor, at a desk, skating or in parents' room

Students reported that they most often ate breakfast alone (57.7%; see Table 8). However, it is difficult to know how the students defined *being alone*. Were they physically alone or were people around but not formally having breakfast together or were they at different stages of their breakfast? Further cross tabulations were applied to see if the presence of someone had an influence on what was eaten. When reported as eating alone, nineteen boys and fifteen girls consumed food from two different food groups (see Table 9). Some gender differences were noted in the frequency when students ate more than two food groups. Twelve boys consumed food from three different food groups, while only six girls did.

When eating with someone, twelve boys ate from three different food groups and nine boys ate from two different food groups. However, eighteen girls consumed from two of the food groups. These results suggest that girls eat from two different food groups regardless if they are with someone or not while the boys will consumed from three different food groups in the presence of someone; however, no statistically significance was found.

**Table 8*****Who the Breakfast Eaters Ate With (n=130)***

	Boys n=69 no. (%)	Girls n=61 no. (%)	Total n=130 no. (%)
Alone	44(63.8)	31(50.8)	75(57.7)
With someone	25(36.2)	30(49.2)	55(42.3)
Mother	4(5.8)	3(4.9)	7(5.4)
Father	2(2.9)	6(9.8)	8(6.2)
Sibling(s)	9(13.0)	11(18.0)	20(15.4)
Family <sup>a</sup>	5(7.2)	7(11.5)	12(9.2)
Friends	5(7.2)	1(1.6)	6(4.6)
Phone	-	2(3.3)	2(1.5)

<sup>a</sup> more than one family member present; one being an adult**Table 9*****Eating Alone or With Someone and How Many Food Groups Consumed***

	Number of food groups consumed				
	0	1	2	3	4
Alone					
Boys (n=44)	4(9.3)	7(16.3)	19(44.2)	12(27.9)	1(2.3)
Girls (n=31)	3(9.7)	7(22.6)	15(48.4)	6(19.4)	-
With someone					
Boys (n=25)	1(4.0)	3(12.0)	9(36.0)	12(48.0)	-
Girls (n=30)	3(10.0)	6(20.0)	18(60.0)	2(6.7)	1(3.3)

Table 10 indicates what food groups were selected; the top two food groups selected for both boys and girls whether they ate alone or with someone was grain products and milk products. The only exception was girls eating alone in which case their top choice was grain products (67.7%), vegetables and fruit (58.1%) and milk products (45.2%) (see Table 10). These findings are consistent with student responses on the questionnaire that cereal and milk was the most selected food item (43.1%; see Table 5).

**Table 10**

***Eating Alone or With Someone and What Food Groups Consumed***

	Grains	Vegetables & Fruit	Milk	Meat & Alternatives	Extra Foods
Alone					
Boys (n=44)	36(83.7)	17(39.5)	26(60.5)	6(14.0)	9(20.9)
Girls (n=31)	21(67.7)	18(58.1)	14(45.2)	2(6.5)	6(19.4)
With someone					
Boys (n=25)	22(88.0)	10(40.0)	18(72.0)	7(28.0)	6(24.0)
Girls (n=30)	23(76.7)	8(26.7)	20(66.7)	1(3.3)	8(26.7)



The students were asked on the questionnaire who selected and who prepared their breakfast. For selecting the food, 86.7% of the students selected the food (see Table 11). Boys reported they selected 77.6% of the time and girls selected 96.7%. There was a significant difference of 0.009 ( $p < 0.05$ ) which means girls determine what they were going to eat more often than the boys. Comparing to selecting the food, fewer students (79.7%) reported preparing their own breakfast. The person most likely to prepare breakfast was their mother (16.4%). There were gender differences in who prepared breakfast. Table 11 shows that 93.4% of the girls prepared while 67.2% boys prepared breakfasts. Interestingly, mothers were reported as having prepared breakfast for 28.4% of the boys but only 3.3% of the girls. There was a significant difference of 0.002 ( $p < 0.05$ ). These results suggest that girls are more independent in selecting and preparing their breakfast than their male counterparts.

Although household demographics were not asked on the questionnaire indicating if a father was present or not; or whether work schedules conflicted with breakfast time, fathers were reported to have very little involvement in selecting and preparing breakfast for the students. An *other* family member (for example, grandmother, aunt or older sibling) had more involvement than the fathers (see Table 11).

**Table 11*****Who Selected and Prepared Breakfast (n=128)***

	Boys (n=67)	Girls (61)	Total
	no. (%)	no. (%)	n=128
Who selected *			
Student	52(77.6)	59(96.7)	111(86.7)
Mother	13(19.4)	1(1.6)	14(10.9)
Father	1(1.5)	-	1(0.8)
Other	1(1.5)	1(1.6)	2(1.6)
Who prepared **			
Student	45(67.2)	57(93.4)	102(79.7)
Mother	19(28.4)	2(3.3)	21(16.4)
Father	1(1.5)	1(1.6)	2(1.6)
Other	2(3.0)	1(1.6)	3(2.3)

\* p = 0.009

\*\* p = 0.002

In conducting cross tabulations, it was found that when a student prepares their own breakfast, two food groups were most often present (see Table 12). However, when a mother prepares a breakfast the number of food groups is more often three. In summary, the data suggests that when a boy student has a breakfast made by his mother, it is a hot breakfast that might consist of egg, bacon and/or pancakes/French toast. As indicated in Table 5, boys are more likely than girls to have a breakfast containing meat and alternative food group and this is more likely to be prepared by the mother. There was a parental gender difference in preparation as well. When mothers selected and prepared breakfast, they were more likely to have three food groups present, whereas fathers were reported to select from one food group and prepare using only one or two food groups (see Table 12). These findings suggest that mothers selected and prepared more elaborate breakfasts than fathers did.

**Table 12**

*Comparison of Who Selected and Prepared and the Number of Food Groups Consumed (n=127)*

	Number of food groups consumed				
	0	1	2	3	4
	no.(%)	no. (%)	no. (%)	no. (%)	no. (%)
Who selected	11(8.7)	23(18.1)	61(48)	30(23.6)	2(1.6)
Student	9(81.8)	21(91.3)	58(95.1)	20(66.7)	2(100)
Mother	-	1(4.3)	3(4.9)	10(33.3)	-
Father	-	1(4.3)	-	-	-
Other	2(18.2)	-	-	-	-
Who prepared	11(8.7)	23(18.1)	60(47.2)	31(24.4)	2(1.6)
Student	8 (7.9)	18 (17.8)	53 (52.5)	20(19.8)	2 (2.0)
Mother	1 (4.8)	4 (19.0)	6 (28.6)	10 (47.6)	-
Father	-	1 (50.0)	1 (50.0)	-	-
Other	2 (66.7)	-	-	1 (33.3)	-

## **4.2 Interviews**

The second phase of the study involved semi-structured, tape-recorded interviews with seventeen students. Eight boys and nine girls participated. Students were given consent forms that asked how often they eat breakfast in a week; either *almost always* (6-7 times per week); *sometimes* (3-5 times per week); or *rarely or never* (0-2 times per week). This question was asked to determine the number of students representing each group. Seventeen students volunteered to be interviewed and all were selected as participants. Eleven out of the seventeen participants reported eating breakfast *almost always*. Only one student indicated she did not regularly (*rarely or never*) eat breakfast. Interviews were held at times mutually agreed upon by the researcher and the students. The interviews occurred during January and February 2002 at school either during lunch break or after school, and lasted from thirty to forty-five minutes.

Each interview probed further in three areas: (1) typical eating habits and routines on weekdays and weekends, (2) the influences on students' breakfast choices, and (3) the reasons for the students' choices, how they are thinking about breakfast, its meaning and purpose presently and for the future. Pseudonym names were used and quotes were edited only to increase readability for the reader. All quotes were selected to describe the range of responses.

### **4.2.1 Breakfast Habits**

In seeking to understand breakfast eating habits of students, interviews asked students to recall a typical school day from the time they get up until the time they go to

bed, their activities and meal routines. The students were asked to recall a typical weekend day. In analyzing the information provided, I compared similarities and differences in routines and dietary habits reported by the seventeen students.

#### **4.2.1.1 Weekday**

Many of the students had similar times for getting up and similar breakfast environments on school days. Generally, when students reported their typical weekday breakfast, all of the students reported having a breakfast that was quick and relatively healthy. Common self-selected food choices were cereal, cold and hot, with milk; toast, bagels, frozen waffles and/or juice. These preferred foods concur with the selected food in the questionnaire (see Table 6). Students described their typical weekend breakfasts as follows:

**Adam** - *I wake up at around 7:30 and I stay in bed until 7:45. It's hard for me to get up. Then I have a shower and then I usually have breakfast which is either a bowl of cereal or a piece of toast. And oh, I make that for myself. And then I get ready for school.*

**Eve** - *Usually my dad gets up the earliest so he (has) breakfast by himself. And then my mom does and then I do. So, I am eating alone. And I usually have something light because I can't digest that early in the morning ... really can't eat that much. So I usually have bread, yogurt or a little bit of cereal.*

**Fred** - *I don't know whatever we have, just cereal and Rice Krispies or bagel and cream cheese. Today I had banana bread. I'm too lazy to make the food.*

As on the questionnaire, students were asked who selected and prepared the food that was eaten for breakfast. In the interviews, I probed further to ask who was involved in selection and preparation. The interview data further confirmed that when parents are present at breakfast, the variety of food increases. Students described the preparation done by parents that contribute to this increased variety.

**Cindy** - *Usually I have a bowl of cereal and then milk and sometimes my dad cuts up an orange or something.*

**Ingrid** - *... It depends every day. Sometimes I eat, sometimes my mom makes a big breakfast (of) eggs and sausage and stuff and sometimes I just have porridge or cereal.*

**Georgia** - *Sometimes my mom makes a blender drink. And it's like ... she got this new Vita Mix thing and it's a really, really powerful blender and she just throws all this fruit in with tofu and ice and stuff and just mixes it all up into a smoothie. It's kind of like Booster Juice. And so if she's not making that though, then I'll probably have a bowl of cereal like Cheerios or Rice Krispies ...*

Twelve of the seventeen students reported selecting and preparing their weekday breakfasts themselves. Four students reported a family member would make the meal sometimes and only one student reported that his parents prepared breakfast for him. All reported that they eat at the kitchen table or counter. Who they ate with varied. Either they ate alone or with family members who were coming and going, involved in their own morning routines. Students described the breakfast environment of a typical weekday morning:

**Charlie** - *I would make myself a couple pieces of toast and have peanut butter and honey with it and a glass of milk. (I don't eat with anyone), they are either eating or have already eaten or, or just waking up.*

**Derek** - *I have a counter and a table and I sit at the counter. (Dad) sits at the table ... (we) don't really talk.*

**George** - *Well it depends, if my grandmother's there, ... if she's not working, she'll usually make me because sometimes I don't know if my grandmother is not here in the morning and by the time I get downstairs, there will be like eggs, bacon, hash browns and probably French toast or something because she takes care of the family. ... she just knows that we like those kinds of foods. But when she's not there I eat cereal, I eat ..., I don't know what it's called but it's like Maple Nut cereal. It's like so, it's got raisins because the raisins are really good. I don't know what they got on them but they're good. Hum, Cruncharoos, have*

*you ever got those, Honey Nut Cherrios, or if I'm too late and slept in I would probably make myself a bagel and put some cream cheese on it and get a drink and go.*

**Alice** - *No usually I sit down and eat breakfast usually with my mom because she has to leave for work at the same time that I have to catch the bus so. She eats usually the same thing I'm having ... if I'm putting toast in, she'll just say oh could you pop one in there for me and we each make our toast and sit down and eat.*

It's unclear from the students' comments how much communication occurred over breakfast among family members. One expects that with company, eating becomes more enjoyable and nutritious. However, students' comments suggest family members are preoccupied with getting to work or school and do not socialize over breakfast. Derek and Alice's comments above suggest a kind of parallel breakfast – of eating with someone but quite independently.

#### **4.2.1.2 Weekend**

Students indicated that sleeping in on the weekends was important and breakfasts occurred later in the day. Their comments suggest that weekend breakfasts are more leisurely with more time involved in making breakfast and eating. Parents' were more likely to make elaborate meals. Nine students reported either having brunch or lunch with family members. Weekend activities such as hockey or skiing sometimes affected



breakfast routines. When asked if their weekend routine was similar to or different from their weekday routine, students commented:

**Adam** - *No, no. I usually sleep in longer. And then I would wake up and eat a breakfast that would take longer to make ...like eggs or something.*

**Ben** - *... wake up very late like 10:30 somewhere in there. Usually don't eat breakfast on weekends because we wake up so late. We'll just eat either brunch or lunch. Brunch can be like fried potato pieces along with tomato somehow bake, I forgot how. Like just slices with a few herbs on top.*

**Debbie** - *On the weekends we have French toast or waffles or something that takes longer than on a weekday morning.*

**Eve** - *We usually have breakfast together, ... something special ... eggs or French toast ...*

For all students, breakfast was delayed on the weekends because they slept late. Six students mentioned having brunch or lunch; four spoke of beginning their day with lunch.

**Ethan** - *I don't usually get up until around ten ... So I don't think there's a point of having breakfast. Breakfast is my least favourite meal anyway. I just usually*

*wait until lunch and then I'll make myself some lunch like macaroni and cheese or something. With some banana or something, make sure you get fruit or something in there.*

**Fred** - *I might, because it would depend, I would just combine it with lunch.*

**Holly** - *I probably would sleep (till) eleven and then I would get up and do my jobs and then have lunch.*

**Alice** - *Sometimes I don't eat breakfast on the weekend because I sleep past breakfast because I usually wake up on the weekends about 11:30 or so. I have ... a bigger lunch. And everybody's there usually on the weekend, unless my dad's on call for ... all the meals and everything.*

Activities over the weekend influenced sleep and eating patterns. Two of the students talked about skiing with their family on weekends. Either they got up early and drove to the mountain or they stayed at a cabin at the local ski hill.

**Harry (going to hockey)** - *I would take, just a little snack. ... those little fruity-oo gummy things, a couple of packages of those. Maybe an orange or something ... And then when I get there if there a whole bunch of water ... I'll just drink some water. (at the ski condo) Oh yeah and it's again bagel and cheese or cereal. Sometimes it's other stuff that other kids are having or our friends are having.*

#### **4.2.2 Influences**

The second area of questioning in the interviews asked students possible influences on whether they ate or didn't eat breakfast. Students were asked when they went to bed, if they had a bedtime snack, and what it was. They were also asked if their eating habits, especially breakfast, was similar to or difference from their parents.

##### **4.2.2.1 Bedtime Snack**

All seventeen students reported similar bedtime routines. Bedtimes commonly occurred during the week between 9 and 10 pm. Twelve of the students reported either routinely or on occasion that they have a bedtime snack. Although the snack varied, they were mainly light in amount as well as easy to digest, mainly carbohydrates. Drinks such as milk and water were common before bedtime. Students described their bedtime snacks:

**Faith** - *Probably the same as breakfast just not as much.*

**Ben** - *I'll have just a little bottle of Koala Springs which is pop. ... and more snacky stuff and then sometimes a banana and go to bed.*

**Adam** - *I would usually have a banana or a fruit at like 9:30 before I go to bed.*

**Alice** - *I have really light something maybe some orange juice and like a piece of fruit or something that or maybe a little cookie ... nothing really heavy.*

**Debbie** - *Maybe I usually have a glass of milk or glass of water.*

Some students provided reasons for the bedtime snack. Two boys noted that they have a bedtime snack so they don't get hungry in the middle of the night. However, two girls said that they are conscious not to eat too much or too close to bedtime. They would feel sick if they did so. Students talked about their own body awareness and how food made them feel. It's interesting to note that the boys used the word *hungry* while the girls used the expression of *feeling sick*. I wonder if these feelings may be the same and are only labeled differently by boys and girls.

**Harry** - *Sometimes right before I go to bed, I have a glass of water. I might have like you know those little fruit-oos, little packages, they're like little gummy things ... just a little snack and so I'm not starving.*

**Eve** - *I sometimes do like (to) eat cereal or something if I'm really hungry but usually not because it kind of gives me a stomach-ache.*

**Cindy** - *We usually just have a bedtime snack but we don't eat too close before bed because otherwise you start to feel kind of sick and you wake up in the night.*

If students have been watching a movie or doing homework in the evening, the bedtime snacks may be different.

**Georgia** - *Sometimes I watch a movie before I go to bed, and then, I will have popcorn or something like that ... maybe a glass of milk.*

**Derek** - *I might have a muffin before I go to bed if I had been doing a lot of homework. I get hungry after doing homework.*

#### **4.2.2.2 Parents' Habits**

Most of the students report that they perceive their eating habits to be similar to either one or both of their parents. Not all parents sit down with their children and have breakfast. This is due to work schedules and the need to assist younger children in the morning. Five of the students were unaware or unsure what or if their parents had breakfast due to these differences in morning schedules.

**Cindy** - *I kind of have both ... my dad has fruit and my mom has cereal and I have a bit of cereal and a little bit of fruit too. It's kind of like a mixture.*

#### **4.2.3 Diet Assessment**

The third area of questioning in the interviews sought to understand the reasons for the students' breakfast choices. Students were asked to reflect on their breakfast habits and overall diet and whether or not they believed it was healthy. Fifteen students

believed that the foods they ate were healthy. Students are aware that dietary habits influence their overall health and nutritional status. However, sometimes their practices do not match their knowledge. Many of the students commented in the interview that they can improve their diets, recognizing that they regularly consume too much *junk* foods and sweets. Student explained their eating choices as follows:

**Ethan** - *It's not like super healthy but it's not unhealthy. Super healthy would be like my mom's breakfast and she has whole grain oatmeal, ... and top with all this ... herbal stuff. If I go to a Chinese restaurant, it's my favourite food but it's probably one of the most unhealthy. I go there and take a bunch of meat ... and always make sure I get vegetables, I always make sure that I get vegetables and fruit .... Not just meat.*

**George** - *I think it can be a little bit healthier. I don't usually eat fruits in the morning, ... just after school. But I never tried them in the morning because I just think, just see a bowl of cereal, it's basically what everyone eat, that's what I think. But I guess it could be healthier. I drink a lot of milk because it's good for you. It gives you calcium for your bones. I eat a lot of peanut butter because it's protein and makes me grow because I'm quite short. I eat cereal because some cereals (don't) have ... bad stuff in them.*

**Harry** - *It's fairly healthy. It doesn't have too much sugar... not processed food usually.*

Awareness and concern over fat intake was mentioned by three students who seem to base their selection of food on this criteria.

**Ingrid** - *I just don't like eating too much junk food.. And I don't like doing ... drugs and stuff because I think about in the future what will happen. And when I eat, that's what I think too, what will make me like obese ... the future.*

**Cindy** - *I try to eat like healthy, I will eat multigrain and I try to follow the daily food ..., Canada, whatever food guide. (if I have a unhealthy snack) it's usually chips or something ... if you look on the back of a Lay's bag ... fifteen chips is nine grams of fat.*

**Eve** - *If there's a bag of chips and watermelon in the fridge then I think ... if I have this bag of chips then this is not really good so I just stick to the watermelon. I guess they (the chips) are ... really fattening. (I try not to eat fattening things), not really about weight but about keeping healthy.*

When asked how their diet is unhealthy, students reported that sweets and fats are unhealthy.

**Adam** - *When I am watching a movie, I eat chips. And those aren't good for you. I could exercise more than I do ... to burn off the calories.*

**Charlie** – *(I could improve my diet by not) put(ting) so much peanut butter on.*

**Derek** - *After school, my sister and I will just load bowls ... with ice cream until they are that tall and load it with chocolate sauce.*

**Fred** – *(My diet is unhealthy because) I eat a lot of bad snacks. I eat ice cream and I eat cookies and chips a lot.*

**Holly** – *(My diet is unhealthy because) I have too much candy (but I am not concerned about my eating habits).*

#### **4.2.4 Favourite Breakfast**

Students were asked during the interview to select their favourite breakfast from coloured photograph cards of a variety of foods (see Appendix E). They were asked whether it was healthy or not and whether their selection was based on health or on some other criterion such as taste or if they considered the food as a treat or not. Their favourite breakfast foods closely resembled weekend breakfasts that were more elaborate in preparation and selection. Although the students questioned the amount of food, the selected foods were perceived as being a healthy choice by fifteen of the students. Seven students reported that time was a reason for not eating such a breakfast on a weekday as well as parental preparation.



**Adam** – *(selected peaches, bacon, sausage, eggs, toast, peanut butter and mixed berries) I would only eat that on days that I would have time to make it or my family has time to make it.*

**Derek** – *(selected watermelon, cereal, milkshake, bacon, cupcake, grilled cheese sandwich, cookies, beef sausage, chocolate milk, and a donut). I know that she (mom) would not let me have a milkshake and a donut for breakfast (it's not healthy). (And) you're ... weighted down for the whole day.*

**George** – *(selected strawberries, a Danish, mixed berries, grapes, apple juice, yogurt, cereal, and chocolate milk) Most of it yes (is healthy), I would say because this is pure apple juice made of pure apples. Yogurt, fruits, I don't know about this (Danish)... kind of fattening ... lots of grams of sugar and some other bad stuff in there. And cereal ... is good for you.*

**Faith** - *(my favourite breakfast is healthy but) I guess it depends how much I eat ... it also depends how much I put on my white bread and if I put lots of sugar then it won't be.*

**Ingrid** – *(selected an apple, orange, kiwi, strawberries, grapes, watermelon and grapefruit and chocolate milk) It's a fruit salad (and it was healthy).*

#### 4.2.5 Meanings

The final questions in the student interviews asked the students' for their definitions of breakfast, health, and nutrition. These questions aimed to explore their thinking and understanding, assuming that how they think about breakfast, health and nutrition will influence their choices of food currently and in future.

##### 4.2.5.1 Breakfast

When asked what foods came to mind when they heard the word breakfast, students reported traditional foods like toast, cereal, pancakes, porridge, juice, milk, and eggs. Students described their thoughts about breakfast foods as follows as well as two students suggested where they developed their ideas of breakfast:

**Adam** - *When I think of breakfast (I think of) foods that you won't eat for lunch and for dinner. I won't eat bacon for lunch. It's not, well you can, it won't be healthy to have it on all three (meals) what you eat for breakfast.*

**Harry** - *Just littler things ... not like steak, just like bread or muffins or bagels or something like that not too big, not too small. Like oranges.*

**Alice** - *Lots of fruit, I always eat lots of fruit for breakfast and I would have orange juice ... it's not too heavy because it's early in the morning and I'm not that hungry yet. I like breakfast, breakfast is my favourite meal of the day because ... I get to eat some of my favourite things because I love fruits and*

*muffins and toast and stuff like that. It's actually a pretty relaxing time before I have to catch the bus and I get to eat with my mom.*

**Derek** - *Toast and porridge and milk and orange juice because that's what always on commercials on TV and cereals.*

**Ethan** - *Eggs. It seems like everybody besides me always have eggs for breakfast.*

#### **4.2.5.2 Health and Nutrition**

Students tend to be aware of food in terms of how it makes them feel and classifying food as being *good* for you or not. They understand and talk about general facts like the importance of variety and moderation in a diet, however, they seem to have a poor understanding of nutrient roles and nutrition language. For example, they talk about *good* food but they don't seem to know what makes it *good*.

When asked about the meaning of health, ten of the students talked about a healthy diet as well as exercise. A few students discussed other aspects of a healthy lifestyle.

**Adam** - *It means eating foods that are doing things that are good for you rather than like sitting on the couch and eating potato chips.*

**Ben** - *Eating a well balanced diet. So not a lot of cake and cookies ... if you eat that it should only be occasionally. Just a treat. And not too much snackish stuff like nuts and bolts and chips, crackers .... Cheese ... never really thought of that as unhealthy but ... I suppose it would be, if you ate too much.*

**George** - *Being in shape. Not over weight ... a good size, you have no problems in your body like cancer .... You can do, you do anything that you want to do and you can do sports and you want to be healthy and you can probably run for a long time.*

**Cindy** - *Something that can give you energy throughout the day not just little sugar bursts ...something that your body need, benefits you.*

The girls seem to have a broader sense that health implies physical well being, fresh air, sleep, and healthy relationships.

**Alice** - *The food groups and what they do to you ... how we should eat them and how much you should eat ... you shouldn't overdose on one type of thing. And getting lots of exercise and going outdoors ... that's what healthy means to me.*

**Beth** - *Eating right and exercise and enough sleep and stuff like that.*

**Debbie** - *Taking care of yourself and when I think of health I think of living longer.*

**Georgia** - *You eat right and you exercise and stuff and you have a really nice family life as well as friends being nice to you and having friends and it kind of keeps you healthy and helps you live a long life and stuff.*

**Ingrid** - *It means your body is working properly and you can function right and your arteries aren't clogged and you eat right. You eat fruit and vegetables and protein and stuff.*

When asked about nutrition, students talked about general health practices like variety and moderation. However, they did not demonstrate a full understanding of the role of nutrients.

**Adam** - *Nutrition means like it's good for you like it's gives you things that you need to get through your day.*

**Ben** - *But it's like how many good products you get out of food to fuel your body. Like the chemical stuff you get out of it ... it's not calories because cake would have tons of those and I don't find cake particularly nutritious.*

**Derek** - *Eating from the five food groups and stuff like a balanced diet. And not eating chips and popcorn all the time. Probably occasionally and having good food like fruit and stuff.*

**Ethan** - *Not being really obese, not being just lazy all the time and doing like an average size of exercise. Either get into an activity sport or do a run or bike a day. Not eating all junk food and stuff and having a variety of foods. And if you are going to have like ... a big thing of pizza or something really unhealthy, have maybe some fruit or vegetables with that.*

At different points in the interviews, all students talked of body awareness and how foods made them feel. Students talked about where they gathered nutrition information.

**George** - *Kind of healthy foods (are) like fruits basically. Something that's not fat ... something that won't make you crave for more like pop. Once you drink it, you want more. Yeah, something healthy.*

**Georgia** - *Mostly my grandma (taught me about nutrition), she's nuts about healthy eating. And she's (has) these healthy books and whenever I go to her house, I have to cook with her ... my mom shows me stuff too. But yeah, it's mainly those two but mostly my grandma. She's insane about it ... like nuts.*

#### 4.2.6 Advantages and Disadvantages of Breakfast

When asked about the advantages and disadvantages of having breakfast, most students reported that the advantages outweigh the disadvantages. A common advantage that many of the students talked about is that breakfast *fills them up, so they can concentrate in school.*

**Adams** - *It fills me up and it keeps me up until break. And if I don't eat my breakfast, my brain doesn't work as well as it would if I did ... if we're learning something and I don't get it. I would get it if ... I think I would if I would have eaten breakfast ... my brain needs fuel.*

**Ben** - *You have been sleeping all night and not really burning much energy but most of the food have sort of been digested and absorbed and you probably wake up feeling hungry. So you don't want to be sent off to school ... completely unfocused from hunger and going through lunch ...*

When asked if they noticed a difference in how they felt when they did not have their usual breakfast, a few students did not notice a change. However, thirteen of the students noticed a difference in how they thought and performed in school.

**Ethan** - *I'm not a big breakfast eater ... make sure that you are not hungry for the first portion of the day because if you are, it might mess up with your school work ... I never really noticed a difference when I haven't had breakfast.*

**George** - *I remember I had a problem when I was little, always sleeping in and I was going to be late for school and I never ate breakfast. And I was always so tired in the morning ... I couldn't answer a question which I knew ... I don't know it. And I guess it (gives) you energy, pumped up for the day... if you don't eat, your stomach will get smaller and then it's bad for you.*

Again, students suggest they gathered nutritional knowledge through media, family, school, and personal experience. Students also talked about their connections between their body and food.

**Alice** - *Sometimes I read the cereal boxes when I'm eating breakfast ... it says ... that eating breakfast helps you perform better in school and it's true because I missed breakfast a few times last year and I found that if I had written a test on a day that I had breakfast, I would do better on those when I had eaten.*

**Ingrid** - *Your brain works during school and you can get started quicker and you're not as tired. And you just think better. And you focus ... My mom told me about that and I've noticed it too.*

**Beth** - *You think better because you're not like concentrating on your stomach because you're hungry, waiting for lunch ...*



**Faith** - *You won't feel sick all day because ... one time I didn't eat and then I thought I felt like I was getting the flu or something because I was so hungry.*

For students the main disadvantages of having breakfast were that it takes time and this conflicts with their desire to sleep longer. They also cautioned about not eating too much or eating unhealthy foods meaning that eating in such a way would not be beneficial. Although they could provide reasons why people do not eat breakfast, the students did not identify with those who do not eat breakfast.

**Ethan** - *For people that aren't healthy maybe it's just another excuse for them to eat more like pop tarts or something. And if you are in a rush, making breakfast would just be a hassle.*

**Alice** - *For some people that diet, you might get thinner or something but no not to me.*

**Cindy** - *If it's not a healthy breakfast then you might not feel good after.*

**Faith** - *Just eating too much and then you feel like if you don't eat enough then you feel sick but if you eat too much then you won't (feel) good either.*

**Georgia** - *No, it's just a regular thing; I always eat it.*

#### 4.2.7 Changes Over Time

Students were asked to think back when they were age ten and whether their breakfast eating habits changed. Seven reported that their current habits were similar to their younger years. Any changes or differences were in the amount that was eaten; school schedules, taste preferences, and nutrition and health education that influenced their current choices. Students describe their changes in breakfast since age ten:

**Ben** - *Pretty unvaried for all of my life except they have been increasing in size recently.*

**Fred** - *I guess they were different. I use to wake up at 6:30 and watch TV for an hour. But now I'm tired too so I sleep a lot.*

**George** - *I think ... a bit different because for cereal now (that) I eat (is) a little bit healthier. I use to eat like Fruit Loops or Corn Pops or lots of sugar cereal back then because it use to be my favourite cereals. It was the best and now I'm kind of grown out of it.*

**Beth** - *I didn't eat breakfast as often. (It changed in grade six because) I got hungrier.*

**Ingrid** - *I would not eat as well. Because I was ... larger and I thought that if I didn't eat breakfast than I won't be, I would get skinnier ... then I realized that it didn't really matter and I just played soccer and I got weight off like that.*

However, four girls reported feeling sick or not hungry in the morning when they were younger. The boys talked about feeling hungry when they did not have any food and although some girls mentioned this, only girls talked about feeling sick.

**Alice** - *I really didn't like to eat breakfast from about grade three to the middle of grade five or so because I just wasn't hungry ... it made me feel sick to eat breakfast, I don't know why. But I was getting up earlier ... I eat breakfast almost every day now and I didn't before so that's different. I usually eat the same stuff that I had when I was younger because I loved fruit since I was a little baby ... if I did eat breakfast that is what I would eat. (It changed because) I got up later. I understood that probably the more the importance of eating breakfast.*

Most students believe that they will continue to eat breakfast when they get older. However, they anticipate changes in practices because of being in a hurry or work demands. Meals might be smaller and quicker.

**Derek** - *I probably ... end up eating breakfast I think.*

**Charlie** - *It all depends, usually it depends when I get up. And school days I will probably always have something even if it is just an apple ... because it's habit now.*

**Harry** - *If you have a job and you have to wake up early in the morning, those would be the times that you don't have that big breakfast, you just grab a snack or just stop at some fast food restaurant or something like that.*

**Alice** - *I think definitely I will continue to eat breakfast because now it's sort of become a routine and if I go without breakfast it seems there is something missing ... you get really hungry and I can't think well ...*

**Cindy** - *I think I will probably even if it is just like an energy supplement bar ... I think everybody has time for breakfast so you should at least eat something.*

**Debbie** - *Because I think it is good to eat breakfast and to keep up my health I would probably eat breakfast.*

**Georgia** - *Always. I will always eat breakfast. Because you have been fasting the whole night long and you need to break that in the morning; that's why it's called break fast.*

### 4.3 Summary

Data from the students' interviews were similar to the student questionnaire. Most ate breakfast that they prepared for themselves consisting of quick convenient meals such as cereal or toast. The interviewed students talked about having parallel weekday breakfasts with family members while the surveyed students (57.7%) reported that they had breakfast alone (see Table 8). The interviewed students talked about individual breakfasts where the family did not appear to converse or socialize over breakfast. This can provide some insight why over half the surveyed students viewed themselves to be eating alone. Weekends were similar for all interviewed students; breakfast occurred later because sleeping in was a common activity.

The interviewed students believed that their eating habits were similar to their parents' habits. Parents can influence student's choices by role modelling, suggesting and presenting food. Other influences that students reported were bedtime snacks as well as a sense of gaining body cognition. Body cognition refers to the students' noticing when they are hungry, full or feeling sick because of too much or too little food. Furthermore, students made connections between mood and food saying phrases like *being weighed down* and *craving foods*.

Although students knew *good* from *bad* or healthy from unhealthy food, the choices they made were not always good and healthy. Students believed that their diets were healthy overall but had room for improvement. Snacks, mainly sweets and *junk* food, were reported to be unhealthy. Students had definite ideas of what constitutes a

breakfast, mainly traditional food items. These traditional foods were selected for their favourite breakfast and weekend breakfast. Time was frequently mentioned as a reason why weekday breakfasts were not reflective of their meaning of breakfast, their favourite breakfast or their weekend breakfast.

Students demonstrated a good command of general health and nutrition knowledge. They recognized the need for variety and moderation in a diet and the importance of exercise. Other aspects of a healthy lifestyle they mentioned were to be disease free, no substance abuse, healthy relationships and adequate sleep. When asked about nutrition, the students talked about *good* food that gives your body required nutrients, however, many did not talk about specific roles of nutrients. All of the students referred to the ways food makes them feel; too much, too little, *good* and *bad* food. This sense of body response to food was revisited when talking about the advantages and disadvantages of having a breakfast. The majority of the students agreed that the advantages, being not hungry and able to concentrate, outweighed the disadvantages, time to make versus the desire to sleep in. Some students said they currently eat breakfast but didn't a few years ago. Others reported slight changes occurred as they aged. However, all the students reported that they continue to eat breakfasts in the future.

## Chapter Five

### 5. Summary, Discussion and Conclusion

#### 5.1 Summary

This study began with the desire to understand what adolescent breakfast habits are and how to develop lessons that meet their needs on this topic. The following research questions were posed:

- What are the breakfast eating habits of early adolescents?
- What are the influences that affect their breakfast habits?
- What reasons do they give for eating or not eating breakfast?

The study was conducted in a school district in the interior of British Columbia during the months October 2001 through February 2002. One hundred and fifty-three grade eight students completed a questionnaire asking about their breakfast eating habits. From this group, seventeen students participated in interviews that involved questions regarding their breakfast habits, the influences on and the reasons for the foods they ate.

The questionnaire reported a majority of the students, boys and girls, ate breakfast on the day of the survey and *almost always* eat breakfast. The small group of non-breakfast eaters, those who did not eat on the questionnaire day, reported they did not eat because of *other reasons* than sleeping in, not hungry or nothing was interesting to eat. For both groups, breakfast eaters and non-breakfast eaters, their reported weekly breakfast habits were consistent with whether they ate breakfast on the questionnaire day or not.

The breakfast eaters reported eating foods from two different food groups, mainly cereal and milk. The majority of the students selected and prepared the breakfast themselves, however, gender differences appeared when someone else was involved. When someone else other than the students made breakfasts, mothers were more likely to select and prepare breakfasts for sons than daughters. The number of food groups increased to three, usually the meat and alternative food group, when it was a mother-prepared breakfast. This implies that often mothers made a hot meal for their son. Mothers were more likely to select and prepare breakfast than fathers. Fathers' involvement with students' breakfast is low compared to mothers. The majority of the students reported that they ate their breakfasts in the kitchen alone. Eating alone or with someone did not have a significant difference on the amount of variety in the food that they ate.

The interviewed students' weekday breakfasts reflected what was reported in the questionnaire: students made their own quick, convenient and relatively healthy breakfast that most often consisted of cereal and milk. Although the surveyed students reported that they ate alone, the interviewed students did not describe their breakfast this way. Rather they reported having parallel breakfasts with family members. Presence of a parent during breakfast time influenced what the student ate, either by the parent modeling breakfast eating, suggesting, selecting or preparing all of the breakfast or portions of it. Weekend breakfasts were more elaborate meals that were enjoyed by family members later in the morning. The weekend breakfasts reflected what the



students thought breakfast meant to them and their favourite breakfast. The students reported that having a breakfast was advantageous and they would continue to have it in the future.

## **5.2 Discussion**

In this section, the three research questions will be discussed in comparison to other studies, the findings and the new insights that the study provides. The three main questions of this study focused on (1) adolescent breakfast eating habits; (2) influences on eating habits; and (3) reasons for or meanings of eating and not eating.

### **5.2.1 Adolescent Breakfast Eating Habits**

From the questionnaire and interviews, students are eating breakfast that they are preparing themselves, and that consist most frequently of cereal and milk. The study found that 108 (70.6%) students reported eating breakfast *almost always* during a given week while the McCreary Centre Society's *Adolescent Health Survey II* reported that half of students always eat breakfast on school days, however, they noted that older students were more likely to skip breakfast than younger ones (Tonkin & McCreary Centre Society, 1999). This study findings are supported by the findings of Skinner et al. (1985) and Siega-Riz et al. (1998). Skinner et al. (1985) studied 225 adolescents' dietary recall and found that their nutritional intakes were lower if they self-prepared the breakfast compared to a mother-prepared breakfast. Siega-Riz (1998) reported on breakfast consumption from 1965-1991. Students are preparing their breakfast more often than in the past (Siega-Riz, 1998). However, the authors also reported that breakfast

consumption is declining for all age groups, especially among the ages 15-18 years from 1965 to 1991 (Siega-Riz et al., 1998). The data in this study do not confirm this. Interviewed students' breakfast patterns for weekdays and weekends mirrored findings from 56 young adults stating that weekday breakfasts were smaller, more convenient than weekend breakfasts (Chapman et al., 1998).

An aspect that was not found in the study but in other research was a gender difference in breakfast consumption. There was no significant difference found between boys and girls and breakfast consumption either on the day of the questionnaire or reported weekly habits. This was supported in one finding as well (Skinner et al., 1985). However, other research states that girls are more likely to skip breakfast than boys (Miles et al., 1997; Perry-Hunnicutt et al., 1993; Siega-Riz et al., 1998). Reasons provided for this gender difference in the articles were girls were more concerned about dieting and dieters more frequently practiced breakfast skipping than non-dieters (Perry-Hunnicutt et al., 1993). This difference between the findings could be due to the small sample size of this study and possibly dieting concerns are not prevalent among the students studied.

At different points of the interviews, students talked about healthy and unhealthy foods, general knowledge of health, balanced diet and exercise, and nutrition, variety and moderation. However, it was only girls who talked about health in broader terms: physical well-being, fresh air, sleep and healthy relationships. Although both genders talked about their concern about fat in their diet, girls talked about how they would make

food choices around this concern. Girls demonstrated this behaviour in another supporting article (Warwick et al., 1997). Ton Nu et al (1996) reported that girls pay more attention to nutrition than boys; although there was not a strong difference noted with the interviewed students.

In summary, the study found that students are eating self-prepared breakfasts that usually consist of two food groups, mainly cereal and milk. Breakfasts were mainly eaten in the kitchen. Weekday breakfasts were quick, convenient and healthy compared to more elaborate weekend breakfasts shared with family and friends. And while girls indicated broader understanding of nutrition concerns, there were no significant differences between girls and boys in the numbers eating breakfast.

### **5.2.2 Influences on Breakfast Habits**

The second research question regards the influences on breakfast eating habits. A strong influence on breakfast habits that was supported in the literature was whether someone selected and prepared breakfast for the students. When someone did, most commonly the mothers, students had larger and more varied breakfasts. Although the majority of the students selected and prepared their own breakfast, whenever breakfast was made for them, it was more likely to be made by the mother. Breakfast being made by the mother was supported in the literature as well (Skinner et al., 1985). In this study, when mothers made breakfast, they more likely used food from three different food groups and made it for their sons. Skinner et al. (1985) reported adolescents who ate self-

prepared breakfasts contained fewer nutrients than when they ate a mother-prepared breakfast; although, the authors did not mention whom the mothers made breakfasts for.

In this study, fathers had a low involvement in selecting and preparing food. Whenever they did, they selected and prepared from one or two different food groups. Interesting to note that one article stated that fathers were more influential than mothers and children, as perceived by the reported adolescents, in introducing healthy foods (De Bourdeaudhuij, 1997). Although my findings do not directly contradict this, they do indicate low involvement of fathers in students' eating habits. What is not known about the families in this study is the household demographics. It is not known if a father is present or due to conflicting schedules or absence, involvement in breakfast is not possible for fathers.

The questionnaire results did not find a significant difference between what students ate and whom they ate with. When eating alone or with someone, girls continued to eat two food groups. Whereas boys increased their food variety to three food groups from two but this was not a significant finding. Contrary, other articles indicate that family and companionship influence adolescent eating habits positively (Feunekes et al., 1998; Lemke et al., 1998; Stanek et al., 1990). What was not clearly defined in the questionnaire, the interview or other studies was whether students ate alone and how they defined *eating alone*. The surveyed students reported eating alone while the interviewed students reported having parallel breakfasts where others may have also been eating in the same room or nearby but with little interaction over breakfast. Other

research articles do not clearly qualify what it means to have breakfast alone or together; assumptions are made. Does it mean eating at the same table and socializing, or does it mean to be in the same room having parallel breakfasts, or no one else is physically around?

Other eating habits examined were bedtime snacks of the interviewed students. They reported consuming light snacks like cereal or fruit that was similar to other research findings stating that breads, cereal and desserts were eaten for evening snacks (Ezell et al., 1985).

The interviewed students talked about their breakfast habits when they were aged ten; less than half said that their habits were similar to their current practices. Many of them reported that school schedules, taste preferences and nutrition and health education influenced the change to their current choices. Clavien et al., (1996) reported on diet changes through puberty and found that it changes marginally through puberty. This article specifically examined nutrient intake throughout puberty and found that *bad* food choices do not occur during puberty (Clavien et al., 1996). Interviewed students also discussed their predicted future breakfast habits and stated they would continue to eat something in the morning.

The interviewed students talked about being more cognitive of their body; physical and emotional feelings associated with food. They talked about connections made between their body, food and their self-image. For example, they discussed feeling

hungry, the need to sleep in, cravings, and concern over fat in food. This increased awareness of body, food and body image during puberty has been noted in many articles (Perry-Hunnicutt, 1993; Sullivan et al, 1995). I have a sense that students are becoming cognitive of food, body and mind connections; however, these connections have not yet been embodied. Their knowledge has not translated into practice. Students commented on how their diets could be healthy and gave examples of how they could improve them. Story & Resnick (1986) noted that knowledge does not necessarily result in behaviour with adolescents. They noted that barriers to dietary change were the lack of time, discipline and a sense of urgency.

In summary the main influences of grade eight students eating habits were who selected and prepared their breakfast. More often mothers made breakfast for their sons and it consisted of three food groups; fathers had a low involvement. Girls were more independent in selecting and preparing their own breakfast that usually consisted of two food groups. Whether they ate alone or with someone did not influence the variety of foods they ate. Changes from past breakfast eating habits were due to schedules, taste preference, nutrition and health education. They also reported that they would continue to eat breakfast in the future.

### **5.2.3 Reasons and Meanings for Breakfast Habits**

In this study, most often students ate breakfast on the questionnaire day only a small number of twenty-three students did not. The reason more often given by the students who did not eat breakfast was *other reasons* such as doing homework, practicing

an instrument, not feeling well, lack of time or forgetting. Similar findings were found by Shaw (1998) who reported that breakfast skippers stated that they did not eat breakfast because of lack of time and not being hungry in the morning. This study did not find a gender difference but Shaw did report that girls were more likely to skip breakfast (Shaw, 1998). The breakfast skippers were also more likely to have dissatisfied body shape and have been on a diet to lose weight, although this was not determined in this study (Shaw, 1998).

Interviewed students talked about convenient, healthy, quick meals for weekday breakfasts. Weekend meals were shared with families and were more elaborate. Reasons for these patterns of meals are consistent with those findings in other literature. This study was similar but smaller in scale to a study conducted by Chapman et al. (1998). Her findings showed that weekday breakfasts were smaller and convenient, influenced by preferences, time, health, availability and physical and social environment (Chapman et al., 1998). These results were repeated in other studies as well (Betts et al, 1997; & Neumark-Sztainer, 1999).

Students talked about the advantages and disadvantages of having a breakfast. Advantages reported as not being hungry and able to concentrate. Reported disadvantages are the time required competing with the desire to sleep in. These findings are supported by one study that categorized factors, viewed by adolescents, influencing their food choices into three levels (Neumark-Sztainer et al., 1999). In descending order of importance, the level one factors were hunger and food cravings, appeal of food, time,

and convenience of food; level two factors were availability, parental influence, food benefits and situation-specific factors; and level three were mood, body image, habit, cost, media and vegetarian beliefs (Neumark-Sztainer et al., 1999). At different points in the interviews, many of the level one and two factors were discussed.

In regards to level three factors, when commenting on their future breakfast practices, students talked about breakfast being a part of their routine. Some had embodied the practice of eating breakfast; they defined themselves as breakfast eaters who will continue to eat breakfast. This notion of self-defining yourself or embodiment was consistent in another study that compared food attitudes between exercisers and non-exercisers (Georgiou et al., 1996). If you consider nutrition and health important and you define yourself as a healthy person then your dietary choices reflect it (Georgiou et al., 1996).

Interviewed students talked about healthy and unhealthy food, or *good* and *bad* food. This finding was supported by Chapman et al., (1993) who examined the meaning of food within the adolescent culture found that *junk* food was associated with weight gain, pleasure, friends, independence and guilt. Furthermore, healthy foods are associated with weight loss, parents and home (Chapman et al., 1993). I have a sense that the students have the knowledge to improve their diets but their behaviour does not reflect the knowledge. This incongruity does not appear to be a concern for the adolescents. An emerging sense is the students feel that it is a right or privilege to practice their eating habits in this way. To eat well is to be responsible and that is



associated with adulthood. There is no sense of urgency in eating habits and health. These practices are normalized through other peers, media and by society as a whole. In some ways, it is a part of who they are and it helps define them. As stated previously, you are what you eat. Similarly how clothes can help define a person, food habits can as well.

The way that students talk about the meaning of food in their lives made me think that there was an emerging theoretical framework that differentiated *kiddie* food from adult food. The students constructed a kind of hierarchy of breakfast foods. For example, George commented that he used to eat *kiddie* (sugary) cereal but he doesn't now because he has grown out of it. More probing was needed to understand what he meant by grown out of it. Was it a physiological change, he doesn't like sugary cereal anymore or was the cereal considered to be a child's product and he does not think of himself as being a child anymore? Ethan noted that his diet was not as healthy as his mothers' because she had whole grain oatmeal. I wonder if he believes whole grain foods with fibre are something that adults eat and enjoy.

A theoretical framework was constructed by other researchers (Chapman et al., 1993). As we age, our eating practices change. This can be due to social, cultural and physiological changes that occur in our lives. We socialize our children to eat *good* food; we as parents are gatekeepers making sure that our children receive the proper nutrition so they can develop into strong healthy individuals. We establish rules around food; what foods can be eaten where and when, almost creating a moral sense of eating. There

are times to eat *junk* food and there are times when we eat *good* food. Adolescents have demonstrated that they are aware of these meanings of foods (Chapman et al, 1993).

Marketing departments of companies understand this continuum. One example, Mini-Wheats breakfast cereal television commercial tries to address the preference conflicts between an adult and a child. The adult prefers the wheat side of the cereal that is good for you and the child prefers the sugar-coated side of the cereal that is fun or *bad* for you. The commercial targets both groups. Are there specific cereals for specific age groups?

Breakfast is an individual meal even when eaten together. A family may all have cereal for breakfast but they can have different cereals. On the other hand family dinners are more likely shared meals with everyone eating the same meal. The nature of breakfast brings out the difference between the age groups. Furthermore, students talked about how breakfast is a habit. Food habits are a reflection of our personal beliefs and meanings about food. Therefore, the nature of breakfast being a habit for an individual, differences are more pronounced when compared to other meals. What are the differences and when do they change? What are the influences and motivations surrounding these changes in eating habits? It is suspected that these influences are social, cultural, and physiological.

In summary, the non-breakfast eaters reported that they did not eat because they were doing homework, practicing an instrument, not feeling well, did not have time, or

had forgotten. Breakfast eaters had quick and convenient weekday breakfasts while their weekend breakfasts were more elaborate and were shared with families. The advantages, not being hungry and being able to concentrate outweighed the disadvantages. These motivations were key when the students reported that they would continue to eat breakfast in the future. Students suggested that food is associated with age or stage of life and has different meanings at these different times.

### **5.3 Conclusion, Implications and Recommendations**

Students are eating self-prepared weekday breakfasts that are reported to be healthy. The questionnaire described this practice as well as the reasons why a small number of students did not eat breakfast. The interviewed students discussed their breakfast habits in detail regarding the weekend habits, other eating habits, parental habits, changes over time and their thoughts about breakfast, health and nutrition. I sense that these students who eat breakfast have embodied this practice and have a sense of what food means to them. It appears the meaning of food changes over time for them.

As previously stated, in order for research to be useful, it should be beneficial to policy, practitioners and knowledge (Marshall et al., 1989). In terms of policy, school districts should be aware of school schedules and eating practices of the students. For example, some students mentioned that they did not eat breakfast in the younger grades because they felt sick or were not hungry. A compounding factor as one student noted is that school begins early for elementary students (8 AM). These factors can influence eating habits and routines in younger children. Perhaps this is a critical time when habits

are developing and children are gaining independence. Parents believed that they have little control over their children's eating habits as they age (Rainey et al., 1998). However, parents are reported to influence school-aged children (Birch & Fisher, 1998). Interviewed students reported that breakfast was part of their morning routine; something that is just done or something was missing if it wasn't done. Therefore, if we do not support an environment that fosters healthy habits, students might cope by blindly acting out of routine and in the long term this may affect their health.

For practitioners there are many possible recommendations. Teachers could develop newsletters and web pages for parents and students talking about the benefits of breakfasts and possible meal suggestions. Articles asking questions of whether we are taking time to feed our children, developing social standards and supporting connections in relationships? Or are we developing self-reliant citizens who share a community in a home? I believe an educator can pose questions for parents and students to reflect on their actions and practices. Through awareness, change can happen.

Curriculum developers can then develop awareness activities that provide an opportunity for students to reflect on their eating habits, explore their reasons for making food choices and explore different breakfast possibilities in order to improve. From the interviews, a couple of students talked about how their diets changed in elementary school due to change in schedule, increase in nutrition knowledge, taste preferences, awareness of the importance of breakfast, and hunger. Therefore, since knowledge about nutrition and breakfast was cited as a factor for change, this information should be

introduced. A note of caution, teachers should be sensitive to the needs of the students in terms of nutrition education. I believe it is important to understand how the students are thinking about food and the meaning it has for them. From past experience as a teacher, just providing the information about nutrition does not create change in the students' behaviour.

One lesson suggestion would be for the students to reflect on their eating habits stating what they eat and why they eat the things that they do. Teachers can help students decide whether their choices are healthy or not and can make some suggestions for improvement. For example, many of the students are eating cereal and milk; therefore, a lesson where students deconstruct cereal might be appropriate. They could compare nutritional levels, taste, cost, grain types, where they are grown and processes involved in manufacture. Becoming media literate would also be beneficial. Using this information, the students can think of improvements or alternatives for themselves in making breakfast.

This leads to the third requirement for research to be useful: it needs to add to the body of knowledge. I sense that students want to learn more about health, nutrition and their own eating habits, however, they want to learn it through their parameters or their readiness for food. I believe there is a need to understand how adolescents think about food and if specific foods are associated with the passage of age. One possible research suggestion would be to have students classify foods into age-associated categories and determine if there is a framework that the students are using. After the framework is

constructed, the students could reflect on their own diets and see how it corresponds to the framework. Another question is to understand how students construct this framework if it does exist. Furthermore, an interesting extension is to repeat this exercise of categorizing with various age groups and determine if the frameworks are similar. By understanding this, we as teachers can create meaningful lessons for our students.

Other possible research would be ethnographic investigations of breakfast time in families. When does it occur and with whom? How and why does breakfast occur? A better understanding of the fathers' role in breakfast time is required. Reasons are needed for his absence or presence at this time.

This study could be repeated with students from a lower socio-economic status, in addition, students from various multi-cultural backgrounds. As well, it would be an interesting follow up to develop a longitudinal study with the seventeen students and report how their breakfast eating habits change over the years.

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## Appendix A: Articles Reviewed

NURITION AND EATING HABITS				
Author	Study Focus	Participants	Design	Results
Clavien, Theintz, Rizzoli & Bonjour (1996)	Examine food habits during puberty	193 adolescents (98 boys & 95 girls); 9-19 years; Caucasian	5-day dietary diary method	Diet changes marginally through puberty. Therefore, bad food habits do not become worse during years of maturation
Ezell, Skinner, Penfield (1985)	Examine snacking patterns of adolescents	225 adolescents (114 boys & 111 girls); 15-18 years; 94% Caucasian	Questionnaire	Morning snacks, obtained from store or vending machines, were candies and salty snack foods while afternoon & evening snacks (breads & cereals) were eaten at home
Miles & Eid (1997)	Compare young people's knowledge with their behaviour	109 adolescents (55 boys & 54 girls) from different educational levels	Student questionnaire and interviews with teachers	There is a gap between knowledge and practice. Gender difference: boys ate breakfast twice as often than girls
Nicklas, Bao, Webber & Berenson (1993)	Compare nutritional intakes and breakfast consumption profiles (breakfast at school, home, or no breakfast)	467 (232 boys & 235 girls); 10 year olds; about 60% Caucasian, 40% African-American	Two surveys at different times	Breakfast consumption makes a significant contribution to nutritional intake. Caloric intake was higher for breakfast eaters at school and home; breakfast skippers did not make up differences
Perry-Hunnicutt & Newman (1993)	Examine dieting practices and nutrition knowledge of adolescences	3,632; (1,828 boys & 1,804 girls); 8 <sup>th</sup> & 10 <sup>th</sup> graders; 69% Caucasian	Three different questionnaires	Dieting is more common among girls than boys. Breakfast skipping was practiced more frequently by dieters

NURITION AND EATING HABITS				
Author	Study Focus	Participants	Design	Results
Siege-Riz, Popkin & Carson (1998)	Examine breakfast trends for children from 1965-1991	Children (1-18 years); 7513 in 1965, 12,561 in 1977-1978; & 4289 in 1989-1991; majority Caucasian	Dietary food recall	Decline in breakfast between 1965-1991, especially for older adolescents (15-18 years) due to behavioural changes
Skinner, Salvetti, Ezell, Penfield & Costello (1985)	Compare between eating patterns and nutrient intakes	225 adolescents (114 boys & 111 girls); 16-18 years; 94% Caucasian; 6% African-American	24 hour food record and written questionnaire	34% were breakfast skippers. Difference in nutritional intakes when compared if teen or mother made breakfast
Sullivan, Gottschall-Pass, Joudrey & Druhan (1995)	Examine students' nutrition knowledge for lifestyle choices	899 students in grades 7, 8, & 9	Questionnaire	Groups who scored higher: older students; daily breakfast eaters; light exercisers; & girls
Ton Nu, MacLeod & Barthelemy (1996)	Comparison of adolescents' food habits & preferences amongst age and gender	222 French adolescents (94 boys & 128 girls) 10-20 years old	12 page, self-administered questionnaire	Girls pay more attention to nutrition than boys; younger adolescents prefer bland & familiar foods while older adolescents skip meals (although not often, more than younger)& increase variety

INFLUENCES ON EATING HABITS				
Author	Study Focus	Participants	Design	Results
Cardamone Cusatis & Shannon (1996)	Investigate the factors that influence behaviour	242 adolescents (107 boys & 135 girls); 14-19 years; 98% Caucasian	Paper and pencil instrument related to (a) behaviour; (b) personal factors; & (c) environmental factors	Boys conformed to parents, ate snacks & ate at home more than girls
De Bourdeaudhuij (1997)	Investigate the perceived influence of each family member on introducing healthy food into the family	328 adolescents; 12-22 years; 67% were girls	Questionnaire	As reported by adolescents, fathers were more influential than mothers & children when introducing healthy foods
Feunekes, deGraaf, Meyboom & van Staveren (1998)	Determine the influence of family & friends on dietary intakes	15 year olds (n=347), their mothers (n=309), their fathers (n=270), their friends (n=240), 79 friends of mothers, & 29 friends of fathers	Questionnaire, interviews and focus groups	Family has a strong influence on dietary patterns. Friends do not have a lot of influence on the fat intake of adolescents
Gillespie & Achterberg (1989)	Examine family interaction patterns related to food & nutrition and compare to parents participating in nutrition education program (self-selected)	1,520 families completed the questionnaire; 177 families (with elementary school children) participated in nutrition education program	Mailed questionnaire	Most families of young children eat evening meals together most of the time. Mothers who worked part time had most positive nutrition attitude and highest interaction
Lemke, Whiting, McKay, Bailey (1998)	Determine the effect of family influence on dietary patterns in subjects from three generational groups	Initial 228 students 8-16 years. 27 child-mother pairs & 12 mother-grandmother pairs compared	4 day dietary intake records	Significant correlation between child & mother; however, not between adult women
Rainey, Kemper, Poling, Tucker & Jordan (1998)	Examine parental beliefs and attitudes about children's dietary patterns	Three groups of five parents of school aged children	Focus groups	Parents expressed little control over children's eating habits, especially as they get older; however, believe dietary habits are important



INFLUENCES ON EATING HABITS				
Author	Study Focus	Participants	Design	Results
Stanek, Abbott & Cramer (1990)	Examine diet quality and eating environment of preschool children	427 parents (mainly mothers) of children ages 2-5 years	Questionnaire	Companionship, positive home atmosphere & appropriate food-related parenting were related to improved dietary quality
Story & Resnick (1986)	Examine adolescents' views on food & nutrition	900 adolescents; grades 9-12	Questionnaire & focus groups	Adolescents have good nutrition knowledge but did not translate to behaviour. Barriers to dietary change: lack of time, discipline & sense of urgency
Warwick, McIlveen & Strugnell (1997)	Examine food choices and factors influencing them	105 Northern Ireland adolescents; 9-15 years	Observations and questionnaires	Parent occupation did not influence choices made; snacking was popular; girls made more health conscience choices; and advertising has an impact

REASONS FOR EATING HABITS				
Author	Study Focus	Participants	Design	Results
Betts, Amos, Keim, Peters & Stewart (1997)	Identify factors that perceived influences on food intake and food frequency	1475 young adults (736 college students, 237 college graduates & 328 non students); 19-24 years; 88% Caucasian	Mailed questionnaire	For students, convenience was a strong perception; nutrition for graduates; and satiety value for non students
Chápmán & Maclean (1993)	Explore the meanings of foods within adolescent female culture	93 Caucasian girls; 11-18 years	Interviews & focus groups	Junk food is associated with weight gain, pleasure, friends, independence & guilt. Healthy foods are associated with weight-loss, parents & home
Chapman, Melton & Hammond (1998)	Identify personal beliefs & motivation in regard to breakfast eating	56 young adults (28 boys & 28 girls); 18-24 years; heritage: 54% Canadian-British-Irish; 23% European; 23% Asian	Interviews	Weekday breakfasts were smaller & convenient than weekend. Influenced by preferences, time, health, availability and physical & social environment
Georgiou, Betts, Hoos & Glenn (1996)	Comparison of food attitudes between exercisers and nonexercisers	319 young adults; 18-24 years	Mailed questionnaire	Self defined exercisers considered nutrition more important & reflected in dietary choices
Neumark-Sztainer, Story, Perry & Casey (1999)	Assess adolescents' perceptions about influences on food choices and behaviour	141 adolescents; 7 <sup>th</sup> & 10 <sup>th</sup> grade; 40% Caucasian; 25% Asian-American; 21% African-American; 7% multiracial; 6% Hispanic; 1% Native American	Focus groups	Factors perceived are: hunger & cravings; appeal; time; convenience; availability; parental influence; health benefits; situation-specific; mood; body image; habit; cost; media and vegetarian beliefs. Barriers are lack of sense of personal health & taste preference for other foods

REASONS FOR EATING HABITS				
Author	Study Focus	Participants	Design	Results
Shaw (1998)	Determine the extent of breakfast skipping & reasons why	699 Australian 13 year olds; majority Caucasian	Questionnaire & telephone follow-up survey	12% were breakfast skippers. Girls more than boys. Skippers were dissatisfied body shape & was on diet but reason why was due to lack of time & not being hungry

SUPPORTING RESEARCH AND PAPERS	
Author	Summary
Achterberg (1988)	Qualitative studies provide insight as to how and why of nutrition education
Birch (1998)	Children's food preferences and habits are shaped by experiences and parents' feeding practices
Birch & Fisher (1998)	Parents have a strong influence in children's food preferences. By having nutrient dense foods available, increases consumption. Attempts to restrict snack food and use them as rewards may lead to over-consumption of them
Blaylock, Smallwood, Kassel, Variyam & Aldrich (1999)	Rising incomes, time constraints, and moderate food prices are outweighing nutrition and health information. The outcome is an increase in obesity in the United States
Chapman, G (1992)	Adolescent girls relate eating junk food with friends and being away from home while healthy foods are related to family and home.
Chicoye, Jacobson & Landry (1997)	Adolescents are not consuming more but exercising less; encouragement to increase physical activity
Crockett & Sims (1995)	In order influence children's eating patterns and nutritional status; policy recommendations are made: (1) have partnerships with families; (2) improve effectiveness of social programs; and (3) form partnerships with media
McIntyre (1998)	Adequate breakfast; breakfast nutrient contribution to daily intake; & guidelines for institutional authorities were defined. Breakfast has a role in the nutrition and cognitive development of children
Nagel & Jones (1993)	Home Economics teachers can be instrumental in efforts to prevent eating disorders
Reid & Brownrigg (1998)	As defined by the Alameda County (California) study, there are seven healthy behaviours. Although breakfast is not directly linked to lower mortality, it does have positive outcomes. Breakfast eaters have been related to other health behaviours: running, not smoking, "heart healthy" diets & weight loss
Seaman & Young (1996)	Comparison of nutrition education between students who study Home Economics and those who do not. 80 students (14- 16 years) completed a questionnaire & dietary recall. Nutrition knowledge and eating patterns following the Food Guide was higher in students who study Home Economics
Wardle (1995)	Parents influences children's' eating habits, preferences & food choices. Parental strategies in child feeding using food as rewards typically fail

## Appendix B: *Questionnaire*

### Breakfast Habits of Adolescents: Towards Meaningful Lessons Questionnaire

This questionnaire is part of research titled "Breakfast Habits of Adolescents: Towards Meaningful Lessons" and being conduct by Dr. Linda Peterat and Lynn Engelsjord in the Department of Curriculum Studies at the University of British Columbia. If you have any questions about this research, please contact Lynn Engelsjord at 250-764-2413. The purpose of the research is to learn what influences teenagers' breakfast eating habits. Your answers will help us understand ways we can prepare better lessons for teaching about breakfast. It will take about five minutes to complete this questionnaire. You have the right to refuse to answer it. Completing or not completing this questionnaire will not affect your progress, grades, or standing in any of your courses in any way. If you do complete the questionnaire, you have given consent for us to use your answers in this research project. Please return the questionnaire to the person who gave it to you. Do not put your name on it. In this way, we will not be able to identify the answers you gave, and they will be anonymous. The answers you give will be used only by the researchers for the purposes of this research.

Gender:

- ☐ Male  
☐ Female

1. In a typical week, how often do you eat or drink something in the morning?  
☐ ALMOST ALWAYS (6-7 TIMES PERWEEK)  
☐ SOMETIMES (3-5 TIMES PER WEEK)  
☐ RARELY OR NEVER (0-2 TIMES PER WEEK)
2. THIS MORNING, did you eat or drink anything before you came to class? Please check one.  
☐ YES (omit question #3 and continue with #4)  
☐ NO (please answer question #3)
3. IF YOU ANSWERED **NO** TO QUESTION #2, PLEASE ANSWER.  
If you did not eat or drink anything this morning, please state your reasons why.  
Please check any possible answer(s) that apply to you.  
☐ SLEPT IN  
☐ WAS NOT HUNGRY  
☐ NOTHING INTERESTED ME  
☐ OTHER \_\_\_\_\_

IF YOU ANSWERED **NO** TO QUESTION #2 AND ANSWERED QUESTION #3  
THEN YOU ARE FINISHED THE QUESTIONNAIRE. THANK YOU.

IF YOU ANSWERED YES TO QUESTION #2, PLEASE ANSWER QUESTIONS #4-8

4. If you did have something to eat or drink, what was it?
5. Who selected the food or drink item? If it was someone other than yourself, state their relationship to you (for example, mother, father, etc.).
6. Who prepared the food or drink item? If it was someone other than yourself, state their relationship to you (for example, mother, father, brother, restaurant cook, etc.).
7. Where did you eat or drink the item(s) (for example, walking to school, at school, in the kitchen, watching TV on the couch, etc.)?
8. Did you eat or drink with anyone? If so who was that. Please state their relationship to you (for example, mother, father, friend, etc.).

**Thank you for completing this questionnaire. Please return this questionnaire.**

**Breakfast Habits of Adolescents: Towards Meaningful Lessons**  
**Informed Consent Form**

I (student name, please print) \_\_\_\_\_  
have received a copy of the consent form describing the study entitled "Breakfast Habits of Adolescents: Towards Meaningful Lesson". I have read the consent form and have signed both copies of the form, keeping one for my own records and returning the other to the investigator.

I agree to participate in the study titled "Breakfast Habits of Adolescents: Towards Meaningful Lesson" in the following ways:

*Please check one*

I do	(    )	Volunteer to participate in the 50 minute individual
I do not	(    )	interview that will occur outside of class

I understand that my agreement or rejection to participate in the study will not in any way affect my academic assessment. I also understand that in any written reports or publication my identity will be disguised and that confidentiality will be assured through the use of pseudonyms; if my identity in a particular data excerpt can not be disguised it will not be used. In addition, I understand that the audio-tapes in which I may be identified will only be used for research and educational purposes.

\_\_\_\_\_  
Student Signature

\_\_\_\_\_  
Date

I consent	(    )	To my child's participation in this study
I do not consent	(    )	

\_\_\_\_\_  
Parent or Guardian Signature

\_\_\_\_\_  
Date

If you consent to participate in the interview, please complete the following.

Your phone number: \_\_\_\_\_

Possible “good” times/days that you would be available for an interview

---

Depending on the number of volunteers for the interview portion, you may or may not be selected for an interview. It is important that the group of selected interviewees have a variety of eating habits. Therefore, I need to know your typical breakfast eating habits. Please complete the following questionnaire:

Gender:

- ☐ Male
- ☐ Female

In a typical week, how often do you eat or drink something in the morning?

- ☐ Almost always (6-7 times per week)
- ☐ Sometimes (3-5 times per week)
- ☐ Rarely or never (0-2 times per week)

Please **KEEP THIS COPY** for your records.

Thank you for your time and consideration

**Breakfast Habits of Adolescents: Towards Meaningful Lessons**  
**Informed Consent Form**

I (student name, please print) \_\_\_\_\_  
have received a copy of the consent form describing the study entitled "Breakfast Habits of Adolescents: Towards Meaningful Lesson". I have read the consent form and have signed both copies of the form, keeping one for my own records and returning the other to the investigator.

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*Please check one*

I do	(    )	Volunteer to participate in the 50 minute individual
I do not	(    )	interview that will occur outside of class

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\_\_\_\_\_  
Student Signature

\_\_\_\_\_  
Date

I consent	(    )	To my child's participation in this study
I do not consent	(    )	

\_\_\_\_\_  
Parent or Guardian Signature

\_\_\_\_\_  
Date



If you consent to participate in the interview, please complete the following.

Your phone number: \_\_\_\_\_

Possible "good" times/days that you would be available for an interview

---

Depending on the number of volunteers for the interview portion, you may or may not be selected for an interview. It is important that the group of selected interviewees have a variety of eating habits. Therefore, I need to know your typical breakfast eating habits. Please complete the following questionnaire:

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- ☐ Almost always (6-7 times per week)  
☐ Sometimes (3-5 times per week)  
☐ Rarely or never (0-2 times per week)

Please **RETURN THIS COPY** to Lynn Engelsjord as soon as possible.

Thank you for your time and consideration

## **Appendix D: *Guide for Semi-Structured Interview***

### **Breakfast Habits of Adolescents: Towards Meaningful Lessons Guide for Semi-Structured Interview**

1. Before we start focusing in on your eating habits, I would like to get to know you a bit more. Tell me about yourself.

Probes:

- Who do you live with?
- What do they do?
- How long have you been in that living situation?
- Where were you before?

2. Now I'd like to take some time to talk about your typical eating habits and how they fit into your day. I'm going to have you take me through a typical week day from the time you get up until you go to bed, and have you tell me where you normally go, what you do, and what you eat and so on.

Probes:

- What time do you usually get up?
- What do you do then?
- When would be the first time you would have something to eat or drink?
- What would that be?
- Where would it be?
- Who prepares it?
- Who are you usually with?
- How do you decide what you're going to have?
- How typical is what you just described? How many days a week would you do this?
- What happens on other days?
- What determines what you will do?
- Continuing on with your "typical week day", what do you usually do next?
- When would be the next time you would have something to eat or drink?
- When would be the last time you eat before going to bed?
- (continue on in this manner as appropriate, going through the entire day)

3. Now I'd like to hear how typical weekend days differ from what you've just described. What do you usually do on Saturday? On Sunday?

Probes:

- Follow above format as appropriate.

4. How does your eating patterns compare to your parents' eating patterns? Why do you suppose there is differences/similarities?

5. I would like you to select from these laminated picture cards of food your favourite breakfast?

Probes:

- What makes this your favourite breakfast?
- Would you make this for yourself or would someone else?
- Where would you have it?

6. Now how does your typical eating habits compare to your favourite breakfast?

7. What does the word “nutrition” mean to you? How relevant is nutrition in your life?

8. What does the word “health” mean to you? Do you think much about your health? Why? Why not?

9. Do you think your diet is healthy?

Probes:

- In what ways is your diet healthy?
- In what ways is your diet not healthy?
- How do you feel about that?
- How important is it to you?

10. What does the word “breakfast” mean to you?

Probes:

- What foods do you associate with breakfast?
- What do you consider to be a good or ideal breakfast?
- How do your breakfast compare to the ideal breakfast?
- Why do you think there are differences?

11. What do you see as the advantage of eating breakfast or reasons to eat it?

12. What are the disadvantages or reasons to not eat breakfast?

13. If you typically eat breakfast, was there a time in the past month where you did not eat breakfast? If so, did you notice any difference for that day compared to your typically day?

If you typically do not eat breakfast, was there a time in the past month where you did eat breakfast? If so, did you notice any difference for that day to your typically day?

14. If you can think back when you were younger (age 10), has your eating habits stayed the same or have they changed?

Probes:

- Does the same person who prepared your breakfast at age 10 the same person now?
- Do you eat with the same people or has that changed?
- Has there been any changed in what you eat for breakfast?
- Has your reasons for eating or not eating changed over the years?

15. In the future, do you think you will continue to eat (or not eat) breakfast? Why or why not?

16. Do you have any concerns about food or eating that we have not covered yet?

## **Appendix E: Food Cards for Interview**

### **Grain Products**

Cereal (Cheerios & Corn  
Flakes)  
English Muffin  
Muffin  
Naan  
Oatmeal  
Pancake  
Popcorn  
Rotini noodles  
Soda crackers  
Tortilla  
White bread  
White Rice  
Whole wheat bread

### **Vegetables & Fruit**

Apple  
Apple juice  
Banana  
Broccoli  
Cantaloupe  
Carrot  
Celery  
Garden salad  
Grapefruit  
Grapes  
Kiwi  
Mango  
Mixed berries  
Orange  
Papaya  
Peach slices  
Pickle  
Raisins  
Star fruit  
Strawberries  
Tomato  
Watermelon

### **Meat & Alternatives**

Bacon  
Egg  
Ham  
Nuts  
Peanut butter  
Roast beef  
Sausage

### **Milk Products**

Cheddar cheese  
Chocolate milk  
Milk  
Yogourt

### **Extra**

Cake  
Chocolate bar  
Coffee  
Cookies  
Cookies  
Corn chips  
Cupcake  
Danish  
Donut  
French fries  
Frozen yogourt  
Fruit roll-up  
Granola bar  
Ice cream  
Ice cream  
Ice milk  
JELL-O  
Milkshake  
Pop  
Potato Chips  
Pudding  
Water

### **Combinations**

Bagel with cream cheese  
Grilled cheese sandwich  
Hot dog  
Macaroni & cheese  
Peanut butter & jelly  
sandwich  
Pie  
Pizza  
Quiche  
Soup

### **Condiments**

Butter  
Jam  
Ketchup  
Mayonnaise  
Mustard  
Sugar  
Syrup