Knowledge, Attitude and Breakfast Consumption Behaviors of Upper Elementary Students in Muang District, Songkhla

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ABSTRACT

This research was conducted to examine and compare knowledge, attitudes and breakfast consumption behaviors of students with different backgrounds, relationships between knowledge, attitudes and food consumption breakfast behaviors and explore factors affecting consumption breakfast behaviors at upper level of Upper Elementary Pupils in Muang District, Songkhla. This quantitative research employed questionnaire in data collection process. 197 male and 203 female students in the first semester of 2008 academic year were drawn from multi-stage sampling technique. The data were analyzed by frequency, percentage, mean, standard deviation, t-test, f-test, Pearson’s correlation coefficient and stepwise multiple regression with .05 significant level.

The study discovered that different sex, age, religions and health affect compare knowledge, attitudes and breakfast consumption behaviors of the students without a significant level at .05. However, different educations, incomes and occupations of parents were influential. The students showed breakfast consumption knowledge and behaviors at an average level, while an agreed level was for their attitudes. Knowledge, attitudes and behaviors were relation with a significant level at .01, while the connection between attitudes and behaviors was found with no significant level at .05. Consumption knowledge affected the students’ breakfast consumption behaviors with a significant level at .05.

Keywords: Consumption knowledge, Consumption attitudes, Breakfast consumption behaviors
INTRODUCTION

Food was an essential prerequisite for life which enabled the body to function normally. Healthy diet was beneficial for health both physically and mentally (Sirilak Sinthawalai, 1990: 15, 76).

Children at the age of 6-12 needed adequate protein and calories (Walai Intarampan, 1987). A daily diet should consist of food from the five basic food groups in the correct proportions. Breakfast should contain varied food for the ease of digestion and absorption process. Eating, therefore, did not mean only to fill up the stomach, but nutritional benefits should also be considered (Nutrition Division, 1990).

After 8 to 12 hours without a meal during sleep, the feeling of hunger in the morning signified low level of blood sugar. Breakfast was the first meal which assisted the body to refuel blood sugar level. When breakfast was skipped, the body would bring out the carbohydrates from the liver to help provide energy, which, however, remained for a short time.

Breakfast was essential for the brain and was the main energy source. Walai Intarampan (1987) stated that breakfast skippers often felt tired, restless or irritable. It was important for school age children to have breakfast everyday as it boosted their attention span, concentration and memory.

With all of the above-mentioned reasons, the examination on compare knowledge, attitudes and breakfast consumption behaviors of upper elementary pupils aged 6 to 12 was conducted with the belief that healthy diet was vital to the growth of these children, especially their intellect.

OBJECTIVES

1. Examine knowledge, attitudes and breakfast consumption behaviors of upper elementary pupils in Muang District, Songkhla.

2. Compare knowledge, attitudes and breakfast consumption behaviors of the students with different backgrounds.

3. Investigate the relationships between compare knowledge, attitudes and breakfast consumption behaviors of the students.

4. To explore factors affecting the students’ breakfast consumption behaviors.
LIMITATIONS OF THE STUDY

This research aimed to study food consumption behaviors in terms of compare knowledge, attitudes and breakfast consumption behaviors of upper elementary pupils in the first semester of academic year 2008 in Muang District, Songkhla. The variables were as follows:

1. Independent variables were classified into physical aspects: sex, age, education, religions and health; family aspected average incomes, occupations and levels of education of their parents.
2. Dependent variables consisted of food consumption knowledge and attitudes and breakfast consumption behaviors.

DEFINITIONS OF TERMS

1. Students meant male and female students at upper elementary schools in the first semester of academic year 2008 in Muang District, Songkhla.
3. Parents’ occupation meant the occupation that consumed most of the time and provided the family with certain income.
4. Parents’ level of education meant the highest educational level of parents.
5. Food consumption knowledge meant fact, thinking, recall, nutrition experience.
6. Food consumption attitudes meant people’s food consumption interest, their reaction and feelings.
7. Food consumption behaviors meant people’s expression on food consumption.

RESEARCH METHODOLOGY

1. Population and target areas
   The research population was 5,720 upper elementary school students in the first semester of academic year 2008 in Muang District, Songkhla.
2. Samples
   By means of Yamane’s formula (Yamane, 1973, to make reference to Utumporn Jamormann, 1987: 42), the research samples covered 374 elementary school students.
SAMPLING

Multistage sampling was employed to:

1. Select target areas for data collection from the sub-districts, namely Boyang, Khao Rupchang, Thungwang, Pawong, Koh-Yo and Koh-Taew.
2. Select schools by drawing lots from school list.
3. Random schools and students in each sub-districts and balance the population and the samples by means of simple random sampling.

RESEARCH INSTRUMENTS

Questionnaire was divided into 4 parts:
Part 1 General information of the students
Part 2 Food consumption knowledge
Part 3 Food consumption attitudes
Part 4 Breakfast consumption behaviors

INSTRUMENT QUALITY CONTROL

Approved by the advisors and the specialists, the questionnaire was tested on reliability. By means of the correlation coefficient alpha, the reliability of attitude questionnaire equaled .722, while the reliability, based on KR-20, of knowledge questionnaire was .755.

DATA ANALYSIS

1. Frequency distribution and percentage were employed to analyze general information of the students regarding their physical and family aspects.
2. Mean and standard deviation were utilized in the analysis of the students’ knowledge, attitudes and behaviors.
3. A comparative analysis of knowledge, attitudes and behaviors of the students with different backgrounds was done.
   3.1 Independent t-test was used to compare the students’ sex, religions and health.
3.2 The students’ age and education as well as their parents’ occupations, average income and levels of education were compared by means of f-test (one-way analysis of variance).

4. Pearson correlation coefficient was used to analyze the relationships between knowledge, attitudes and behaviors regarding breakfast consumption of the students.

5. Stepwise multiple regression was employed to analyze factors affecting breakfast consumption behavior of the students.

FINDINGS

1. General information of the students

Out of 400 samples, 50.7% were females and 49.3% were males. Most of them or 40% were below 11 years; 36.2% were 11 years; 23.8% were over the age of 12. 90.5% of the students were Budhists, and 8.5% were Muslims. 78% of them were healthy; 53.8% had no congenital disease; 8.5% had congenital disease.

Regarding family aspects, 43% of the parents were employees; 31.5% were government officers/state enterprise; 25.5% were merchants/personal affair. 33.5% earned less than 5,000 baht per month and 24.5% earned between 5,001 and 10,000 bath. Most parents or 36.5% did not complete elementary level; 29.3% were bachelor’s degree.

2. General information about knowledge, attitudes and behaviors regarding breakfast consumption of the students

2.1 Average point of the students’ food consumption knowledge was at an average level.

2.2 Average point of the students’ food consumption attitudes was at an agreed level.

2.3 Average point of the students’ breakfast consumption behaviors was at an average level.

3. A comparative analysis of knowledge, attitudes and behaviors regarding breakfast consumption of the students with different backgrounds indicated that:

Students with different sex, age, religions and health had differences in breakfast consumption behaviors with no significant level at 0.05. Knowledge, attitudes and behaviors regarding breakfast consumption of the students whose parents had different levels of education, average income and occupations were different.

4. The connection between knowledge, attitudes and behaviors regarding breakfast consumption of the students (Table 1)
According to the chart, the good-knowledge students had positive attitudes and appropriate breakfast consumption behaviors; in other words, suitable behaviors were performed as a result of positive attitudes, based on their knowledge. However, some students’ performance was affected by other factors. In conclusion, knowledge, attitudes and behaviors were connected, while attitudes and behaviors were connected with no significant level at .05.

5. Factors affecting breakfast consumption of the students (Table 2)

The research discovered that in relation to knowledge factor, B value, equal to .163, meant that 1 point in knowledge factor equaled .163 point in consumption behavior.

Table 1: Connection between knowledge, attitudes and behaviors regarding breakfast consumption

<table>
<thead>
<tr>
<th>Variables</th>
<th>$\bar{X}$</th>
<th>S.D.</th>
<th>$X_1$</th>
<th>$X_2$</th>
<th>$Y_1$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>.482</td>
<td>.155</td>
<td>-</td>
<td>.363**</td>
<td>.153**</td>
</tr>
<tr>
<td>Attitudes</td>
<td>3.700</td>
<td>.446</td>
<td>-</td>
<td>.068</td>
<td></td>
</tr>
<tr>
<td>Behaviors</td>
<td>2.473</td>
<td>.176</td>
<td>-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** P < .01 with significant level at .01

Table 2: B, $\beta$, S.E. and t-test on factors affecting breakfast consumption behaviors

<table>
<thead>
<tr>
<th>Factors</th>
<th>B</th>
<th>S.E.</th>
<th>$\beta$</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.356</td>
<td>.073</td>
<td></td>
<td>32.269</td>
<td>.000</td>
</tr>
<tr>
<td>Food consumption knowledge</td>
<td>.163</td>
<td>.060</td>
<td>.143</td>
<td>2.696</td>
<td>.007*</td>
</tr>
<tr>
<td>Food consumption attitudes</td>
<td>.010</td>
<td>.021</td>
<td>.026</td>
<td>.492</td>
<td>.623</td>
</tr>
</tbody>
</table>

F = 4.882  R = .155  $R^2 = .024$  $R^2_{adj} = .019$  Std. Error = .174

* P < .05 with significant level at .05
DISCUSSION

1. General aspects of the samples

Regarding physical aspects, the research discovered that male and female students were close in number. Most of them were younger than 11, Buddhists and healthy without congenital disease.

In relation to their family aspected, the study revealed that most parents, whose level of education was below Prathom 6, were employees, government officers / state enterprise officers and merchants / businesspeople respectively with monthly income less than 5,000 baht and between 5,001 and 10,000 baht in order.

Concerning food consumption knowledge, the students showed an average level of their knowledge ($\bar{X}=.482$), obtained from different media at schools and health-related organizations. This finding was related to that of Chanognart Choopayak’s research, entitled Knowledge, Attitudes and Behaviors Regarding Food Consumption of Upper Secondary School Students at Demonstration Schools under the Ministry of University Affairs in Bangkok (2001), which demonstrated that the students’ average level of food consumption knowledge was obtained from schools, family and health-related organizations.

As for food consumption attitudes, indoctrinated and informed of food advantages and disadvantages since childhood, most students showed their attitudes at an agreed level ($\bar{X} = 3.699$). This finding was connected with that of Wonrudee Kaewkamkhar’s research, namely The Knowledge, Attitude and Practice about Food Consumption of Students in Education Opportunity Extended Lower Secondary Schools under the Bangkok Metropolitan Administration (2001), which stated that an agreed level of the students’ attitudes was influenced by their teachers, parents and relatives who indoctrinated them.

In addition to food consumption behaviors, the students showed an average behavior level ($\bar{X} = 2.473$), which was related to the study of Knowledge, Attitudes and Behaviors Regarding Food Consumption of Upper Secondary School Students under the Department of General Education in Bangkok by Anukun Phonsiri (2002). The study discovered that financial status of family influenced food consumption behaviors of the students; in that, parents with low monthly income were unable to provide their children with much money.

2. The comparison of knowledge, attitudes and behaviors regarding breakfast consumption of the students with different backgrounds
The study of physical aspects discovered that male and female students had different knowledge, attitudes and behaviors regarding breakfast consumption without a significant level at .05. The finding was related to that of *Knowledge, Attitudes and Behaviors Regarding Food Consumption of Grade 1-6 at Chulalongkorn University Demonstration Primary School* by Orachorn Thongsukdee (1990), which also found no difference in knowledge, attitudes and behaviors between male and female students.

The students with different age showed dissimilar knowledge, attitudes and behaviors with no significant level at .05. This was related with Anukoon Phonsiri’s study of *Knowledge, Attitudes and Behaviors Regarding Food Consumption of Upper Secondary School Students under the Department of General Education in Bangkok* (2002), in which the students of similar age showed similarity in average point.

Levels of education differently affected food consumption knowledge with a significant level at .05, while breakfast consumption attitudes and behaviors showed difference with no significant level at .05. The result was related to that of Chanognart Choopayak’s study of *Knowledge, Attitudes and Behaviors Regarding Food Consumption of Upper Secondary School Students at Demonstration Schools under the Ministry of University Affairs in Bangkok* (2001), which demonstrated that different levels of education did not affect the students’ attitudes and consumption behaviors, but differently influenced their food consumption knowledge.

Differences in religions affected the students’ knowledge, attitudes and behaviors differently without a significant level at .05. The study of *Consumption Behavior and Nutritional Conditions of Students at Songkhla Rajabhat Universities* by Sujittra Thepchai (2003) also revealed the influence of information the students received; in that, Buddhists and Muslims had different knowledge with no significant level.

Students with different health conditions showed dissimilarities in knowledge, attitudes and behaviors with a significant level at .05 as supported by the findings from Pimporn Yotkaew’s study of *Knowledge, Attitudes and Health Practices of Food Consumer of Prathomsuksa 6 Students* (1993), where the students showed an average knowledge level, good attitudes and practices. The comparison among the three aspects showed different attitudes without a significant level, while .05 was a significant level of the differences in knowledge and practices.

Regarding physical appearance, the study discovered that different occupations of parents differently affected the students’ knowledge and attitudes with a significant level at .05, and their breakfast consumption behaviors without a significant level at .05. The finding was related to that of Pano Tippimonrat (1991), who studied *Health Behavior in Food Consumption of Prathomsuksa*
6 Students under the Office of Primary Education in Chumporn and found that the students whose parents worked differently had differences in knowledge of chemical substances in food nutrition; in that, attitudes of the students whose parents were government were different from those of the students whose parents were merchants, employees and agriculturists.

Unequal incomes of parents also affected the students’ food consumption knowledge and attitudes with a significant level at .05. The research also demonstrated that most parents’ average monthly income was less than 5,000 baht. Kanlaya Srimahan (1998) studied Nutritional Status and Food Consumption Behaviors of School-Age Children in Amphoe Muang, Changwat Ratchaburi and found that family incomes influenced food consumption behavior of the students.

Parents’ different levels of education had an impact on the students’ consumption knowledge differently with a significant level at .05, while no significant level at .05 was for breakfast consumption attitudes and behaviors. The research indicated that most parents’ education was below Prathomsuksa 6. According to Wasina Chantarasiri (1983), education was vital to food consumption of a family; in that, parents with high educational level had accurate knowledge of food consumption.

3. The study of the connection between knowledge, attitudes and behaviors found that knowledge and attitudes were connected with a significant level at .05. The study also revealed the connection between knowledge and breakfast consumption behaviors with a significant level at .05. According to Prapapen Suwan (1984: 74-75), students with knowledge of food consumption also had positive attitudes towards food consumption. Similarly, the students’ good knowledge of food consumption led to their good food consumption behaviors. However, it did not signify that a person, with negative attitudes, was able to behave well despite good knowledge. Therefore, good behaviors were carried out by the two major factors: knowledge and understanding.

To summarize, despite good attitude towards food consumption, the students’ behavior did not always as good as their attitude owing to such factor as parents’ income as shown in Chanognart Choopayak’s study of Knowledge, Attitudes and Behaviors Regarding Food Consumption of Upper Secondary School Students at Demonstration Schools under the Ministry of University Affairs in Bangkok (2001).

4. The investigation of factors affecting breakfast consumption behavior discovered that the students’ knowledge had an impact on the students’ behaviors. Manthana Utane (1996)’s study of Consumption Behaviors of Street Vending Food of Prathomsuksa 6 Students at Primary Schools in Bangkok also discovered that the students’ knowledge of technology enhanced their self-study
ability; in that, they were informed of food and nutrition information through radio and television and printed media respectively.

**SUGGESTIONS**

1. Suggested policy

   1.1 Comic books could be good materials in changing school-age children’s breakfast consumption attitudes and behaviors. The Ministry of Education, therefore, should provide students with more comic materials.

   1.2 Administrators educational service offices should encourage teachers to hold seminars on the importance of breakfast and healthy diet.

2. Practical suggestions

   2.1 Breakfast consumption exhibitions, knowledge provision by guest speakers or nutritionists on any special occasions such as to pay respect to teacher’s Day and Children’s Day should be held in order to provide both students and their parents with knowledge, attitudes and behaviors regarding breakfast consumption.

   2.2 For self-study of students, there should be books or documents concerning food and nutrition at school libraries. Moreover, knowledge on food consumption and disadvantages of malnutrition should be informed via local wired radio and publications for better understanding of food consumption.

   2.3 Students should be encouraged to realize the importance of healthcare on themselves, family members, communities and the country.

3. Suggestions for further research

   3.1 The study of breakfast consumption behaviors should be done with different groups of samples in order to figure out appropriate nutritional biochemistry for the samples.

   3.2 Different variables influencing food consumption behaviors of students should be examined.

**BIBLIOGRAPHY**

Education in Bangkok. Ramkhamhaeng University : Faculty of Education.


