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篇名：

體重機背後的秘密—台灣女生的日常飲食

The Secret Behind Weight Scale –Taiwanese Girls' Daily Diet

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I.   Introduction

According to the Ministry of Education in Taiwan, over half of the students adopt excessive lose weight methods, including eating less, eating a little, and even skipping meals. (Liu, 2006). We find that this kind of case always occurs now. From the reports above, we cannot ignore the issue of weight loss and the association between diet and health. Although there are many ways to keep fit and stay healthy, our research will focus on our daily diet. Our study aimed to discuss the following research questions. What kinds of food should young girls consume more or less to keep fit? What kind of body shape is more preferable for young girls? Besides, we also want to design an excellent menu for those young girls who not only want to lose weight but have little time to prepare for their meal. Ultimately, the answers to the questions will be nothing but valuable to our study. We sincerely hope such can help girls who are diffident in their shapes to regain their confidence and have a well-established and healthy life.

II.   Body

II.1 The process of the research

Figure 1.The process of the research

We have received different age groups from 100 valid questionnaires. Most of the participants aged 16 to 18, comprised 79.60%. The following would be those who are aged 13 to 15, which accounts for 13%. Finally, the percentage of people aged from 19 to 21 was 7.40%.

II.2 The food that young girls should consume to keep fit

When it comes to weight loss, one of the most important things is food choices. We should choose foods based on their nutrient density rather than just the calorie content (Troesch et al., 2015). Because young girls are still growing, they have higher needs for more nutrients than adults. In the questionnaire, we raised an open-ended question about "What type of food should young women consume to keep fit?" We found that foods that most of the participants considered that should be consumed more or less will be covered in the following section. Furthermore, as we went through the literature review, we can know the exact reasons why young ladies should consume these foods.

II.3 What to consume more

1. Vegetables

According to our questionnaires, 44 participants expressed the need for vegetables when it comes to losing weight. Vegetables are rich in essential nutrients like vitamins, minerals, and fiber. Aside from being highly nutritious, research has also shown that consuming veggies can help teens maintain body weight. Vegetables are packed with fiber and water, which can help teenagers to keep their appetite stable throughout the day, decreasing the chances of overeating (Pem & Jeewon, 2015).

2. Water

There were 30 responses about water. According to Nutrients, drinking enough water can help maintain a healthy weight. More specifically, drinking water throughout the day can help regulate appetite and decrease the urge to snack. (Stookey, 2016)

3. Whole grains

Thirty-six participants mentioned whole grains. Although many of us agree that whole grains are conducive to weight loss, we should choose the types of whole grains carefully. The good-for-weight-loss whole grains are those that have been ground or processed, which contain only about 500 calories per pound. On the other hand, the not-good-for-weight-loss grains are those in which the kernels have been ground into flour containing 1,200 to 1,500 calories per pound. (Killoran, n.d.)

4. Protein (meat, fish, and eggs)

There were 12 participants referred to consuming protein, including meat, fish, and eggs. Protein is the most crucial nutrient for weight loss and a healthy body. According to the articles in Nutr Metab, intaking protein suppresses appetite and changes weight-regulating hormones (Pesta & Samuel, 2014). Apart from meat, fish, and eggs, studies show that Greek yogurt, nuts, and beans also serve as excellent sources of good protein (Sauer, 2019).

II.4 What to consume less

1. Sweetened beverages

In our questionnaires, 24 people considered that girls should consume sweetened beverages less. According to the articles in Nutrition Research and Practice, sodas, energy drinks, sweet teas, and fruit drinks are loaded with added sugars. High added sugar consumption could lead to weight gain in teenagers. The result of the study from Healthline manifested that drinking a high-sugar beverage in the morning increased young women's appetite and caused them to consume more at

lunchtime (Kubala, 2019).

2. Sweetened processed foods

There were 34 participants considered that girls should consume less sweetened processed foods. There is no denying that teenage girls tend to eat processed foods high in added sugars such as candy, cookies, and other sweetened processed foods. When they try to improve health and lose excess body weight, cutting back on added sugars is essential. This is because most foods that are high in added sugars are low in protein and fiber, which may cause young girls' appetite to fluctuate and result in overeating the whole day (Rowles et al, 2017).

3. Deep-fried foods

According to our responses, 32 participants considered that deep-fried foods should be avoided. In comparison to other cooking methods, deep frying adds plenty of calories. Fried foods are usually coated in batter before frying. On top of that, foods absorb oil and thus increase their calorie content during the process of frying (McDonell, 2017). In general, deep-fried foods are dramatically higher in fat and calories than non-fried counterparts.

II.5 The preferable figures that most teenage girls consider

Among these participants, we found that most of the participants prefer body type3 and body type 4 (Figure 2), which accounted for 61.1% and 27.80% respectively. Only 5.6% preferred figure 6. The least preferable figures were numbers 1 and 6. Both received 0%. The bar chart (Figure 3) showed that most teenage girls preferred slim figures.

The following were the reasons why most of the girls chose body type 3. First, 20 participants considered that if they had the body figure the same as body type 3, they could pull all kinds of clothes off and looked as beautiful as the models in fashion magazines. Besides, 21 participants thought that figure 3 had an attractive feature—a visible collarbone, and comparatively healthier than body type 1 or 2. According to the reports, a prominent collarbone is now one of the most sought-after body features (Bianca, 2015). Last but not least, 18 girls deemed that figure 3 had the thigh gap, a space between the inner thighs of someone standing with their knees straight and their feet together. It is a so-called standard of beauty, particularly applied to women's bodies. In a word, the reason for the choice of this figure virtually resulted from the impact of the fashion industry and today's beauty standards.

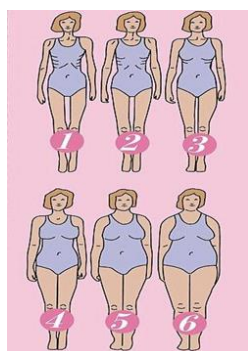**Figure 2. Female Body Type Chart (Rachel Waston, n.d.)**

Figure 3. Which figure is the preferable one for teenage girls?
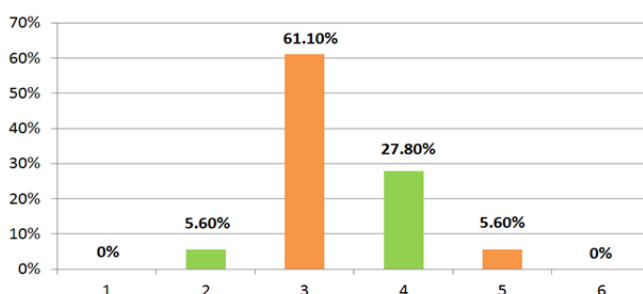

Figure 4. Are the Participants Satisfied With Their Weight?
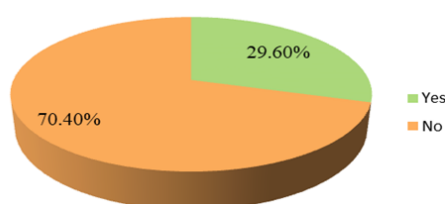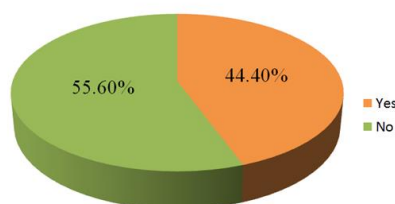

Figure 5. Are the Participants on a Diet Now?

The above figures (Figure 4 and Figure 5) are based on our survey. It is suggested that 70.4% of people are not satisfied with their weight and have entertained the thought of going on a diet. Meanwhile, another figure demonstrates whether the participants are on a diet now. Strangely, only 44.4% suggested that they are on a diet now. From these results, we noticed that most people were not satisfied with their weights and wanted to go on a diet, but not many took action. One of the reasons is that they do not know how to lose weight by having a nutritious diet. Thus, we will design a Five-Day Meal Plan and experiment to gauge whether the suggestions and knowledge about food were effective or not. Ultimately, we hope this meal plan can help young girls to lose weight and keep healthy.

II.6 7-11 Five-Day Meal Plan

Five day meal plan ☀

	Day1	Day2	Day3	Day4	Day5
Breakfast	21Plus Vanilla Roasted Chicken Salad / Tuna and Egg Sandwich	One-day Vegetable-Japanese Seaweed Salad / Double Seasonal Vegetable and Tuna Rice Ball	One-day Wild Vegetable -Eight Kinds of Vegetables Warm Salad / Kuang Chuan No Sugar Added Black Soy Milk	Signature Club Sandwich / Reisui Low Fat Milk	New Orleans Style Fresh Vegetables and Roast Chicken Sandwich / Tomatoes
Lunch	Roast Chicken Bento with Salted Scallion / Fresh Delight No Sugar Added Yogurt	Marugami Teriyaki Chicken Bento	Classic Fenchihu Bento / City Cafe' Medium Black Coffee	Caesar Chicken Burger with Cheese / Viva Almond Strips & Fish	Colorful Vegetables and Roast Chicken Bento
Dinner	Minestrone	Buckwheat noodle / AGV Oatmeal Drink	Salt baked chicken warm salad	21Plus Vanilla Roasted / Kuang Chuan No Sugar Added Black Soy Milk	Colorful Vegetables and Roast Chicken Bento / Banana
Snack	Reisui Low Fat Milk / Bananas	Steamed Sweet Potatoes / City Cafe' Medium Black Coffee	FreshDelight No Sugar Added Yogurt / AGV Oatmeal Drink	Tea Flavored Boiled Eggs / Uni-sunshine No sugar added Hi-fiber Soymilk	Viva Garlic Roasted Almond / Kuang Chuan No Sugar Added Black Soy Milk
Calories	1850	2048	1802	1950	1964
Cost	$371	$314	$355	$325	$328

Figure 6. How Many Calories Do Girls Need? (Ellis, 2019)

	Not Active	Moderately Active	Active
13	1,600	2,000	2,200
14-18	1,800	2,000	2,400
19	2,000	2,200	2,400

(Unit: calories)

Activity Levels (Ellis, 2019):

Not Active: Only moving for daily needed tasks, such as walking to the mailbox.

Moderately Active: Engaging in daily living tasks and activities equal to walking 1.5 to 3 miles daily,

or 30 to 40 minutes.

Active: Engaging in daily living tasks and activities equal to walking three or more miles daily, or more than 40 minutes.

After we went through the literature review and analysis of the questionnaires, we decided to conduct a weigh-losing experiment by eating a healthy diet to gauge whether the findings or the suggestions about food are effective or not. The subject was an eighteen-year-old girl, Lily Tsai, who was 55 kilograms and 150 centimeters. Her body mass index (BMI)[1] was over 24, which means that she was already overweight and need to lose weight. According to the articles in Eatright, a girl needs at least 1600 to 2000 calories a day (Ellis, 2019). Since our subjects aged between 14 and 18 are not active due to the busy school life, we adopt the calorie need, 1800 calories a day, as our experimental calorie demand. After that, we went on a food search to find some food that is healthy and can be combined into a daily meal within the calories that she needs for a day. To have precise figures, we chose food in Seven-Eleven as our experimental instrument since the food there were all labeled with calories or nutrition information so that we could reduce the risk of miscalculating.

First of all, breakfast should be wholesome and nutritious. A well-balanced breakfast can give young girls energy and prevent them from overeating during the rest of the day. Thus, we selected low-calorie salads, such as 21 Plus Vanilla Roasted Chicken Salad, One-day Vegetable-Japanese Seaweed Salad. Having salads for breakfast is a great way to start their day with nutrient-dense foods. They may also boost Lily's energy, improve her digestion, and even help her lose weight (Petre, 2019). As for sandwiches, we choose the ones with eggs and healthy protein like tuna, another low-calorie, high-protein food. Research has revealed that eating eggs in the morning gives feelings of fullness and reduces calorie intake at lunch. A study in 20 teen girls indicated that those who consumed a higher-protein egg-based breakfast were less hungry during the day than those who ate a lower-protein breakfast (Spritzler, 2018).

After having finished breakfast, let us explore lunch. Lunch provides the maximum number of calories she needs in a day. Therefore, we chose Bentos and burgers for main courses, such as Roast Chicken Bento with Salted Scallion, Classic Fenchihu Bentos, Colorful Vegetables and Roast Chicken, and Caesar Chicken Burger with Cheese. The reason we chose these Bentos is that they all contained chicken. According to Nutriology, chicken is abundant in protein and relatively low in calories. Besides, it is low in carbohydrates, rich in essential nutrients like vitamin B and selenium (Boyers, 2019).

Since Lily was less active at night, it is easier for calories to accumulate. Thus, the main thing is to eat fruits, vegetables, and protein for dinner. Therefore, we also include salads, such as Lettuce

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[1] Body mass index (BMI) is a measure of body fat based on height and weight.   Formula: weight (kg) / [height (m)]^2. For most people, an ideal BMI is in the 18.5 to 24.9 range.

and Potato Salad, Warm Salt-baked Chicken Salad, Japanese Pomelo Chicken Salad. Besides the chicken, we also chose Salmon and Tofu Miso Soup as the source of protein. Salmon is affluent in protein and unsaturated fats (omega-3 fatty acids). It also contains almost zero carbohydrates, which is excellent for people to lose weight (Hill, 2019). As for the fruits, we selected bananas. According to Shashank Rajan, a fitness expert and nutritionist, bananas help relax the muscles after an exhausting day. Eating one or two bananas late in the evening helps the body get ready to fall asleep (Rajan, 2018).

Finishing the main meals, we also included snacks since teenagers need lots of calories and snacking can be a great way to work extra nutrients into the diet (Shield, 2019). Most of the snacks we choose are sugar-free foods. They will not add too much burden to the body. For instance, steamed sweet potatoes, which are just about 124 kcal, are rich in fiber and alive with minerals, including iron, calcium, and selenium, containing high nutrients helping girls lose weight and be healthier (Shubrook, 2019).

After following the Five-Day Meal Plan for five weeks, Lily's weight has dramatically changed. In the first week, she was 55.4 kilograms. Then, in the third week, she became 51 Kilograms, and she became 49.9 kilograms in the fourth week. Eventually, it turned out that she was 48.7 kilograms in the fifth week. In conclusion, this effective recipe helped girls who are less active to lose weight, and we firmly believe that every girl can healthily lose weight and have a happy life.

Picture 2. The food which our subject ate in five days
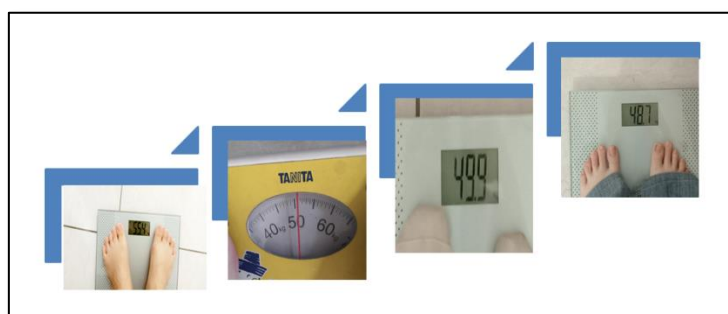
Picture 3. The changes in the subject's body weight

II.7 How to Choose Healthy Food in Convenience Stores

Though health researchers often called convenience stores "healthy food deserts," recent

research indicated that it is not the so-called "desert," which is tied to poor health (American Heart Association, 2018). More specifically, nutritionists provide several methods to make sure that the choices are healthier ones in the convenience stores:

1. Read Labels

Read the front and back of the labels. Besides reading the front of the labels, it is essential to read the back. On the back is where young girls will find all the nutrition information and a full list of ingredients. They will learn more about food from the back of the label than the front. (Kresge, 2016)

2. Choose Whole-grain Foods:

As the advantages that whole grains bring mentioned above, we should learn their names, which will help us to choose whole-grain food. Common varieties include wheat, barley, brown rice, rye, oats, and wild rice. (Pruthi, 2017)

3. Avoid Items with Artificial Additives:

Although it is hard to choose food without any trace of artificial additives, we can try to choose bananas, apples, or salad. According to the study conducted by The Cleveland Clinic, the American academic medical center, consuming small amounts of additives may be accepted. However, the health risks of suffering from chronic diseases, such as obesity, will increase if the participants depend heavily on processed foods. (Cleveland Clinic, 2015)

III. Conclusion

As we addressed in the analysis of the study, young girls preferred slimmer figures. To keep fit healthily, they were recommended to consume more vegetables, water, whole grains, and protein to keep fit. They ought to consume less sweetened beverages, sweetened processed foods, and deep-fried foods since these foods can make girls gain weight. To choose healthy food for dieting, young girls are supposed to read labels to learn the nutrient information and focus on the nutrient density rather than calories. On top of that, they should avoid sugary drinks and items with food additives, because overconsumption of these items may cause severe illnesses. Whole-grain food, such as wheat, barley, and brown rice, maybe an ideal choice.

Additionally, as for the design of the healthy meal plan, protein should be included in breakfast. Fruits, vegetables, and protein should be concluded at dinner as well. Our paper affirmed that young girls were able to go on a diet healthy and effectively. Rita Deattrea, a virtual health physician, said, " Food, like your money, should be working for you" (Beckford, 2012). What to eat is the determining factor for losing weight healthily and effectively. Accordingly, young girls are always supposed to eat healthy food rich in nutrients to lose weight successfully.

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