

## What Drives Dietary Consumption: The Incongruence in Perceived Weight and BMI of Korean Women Consumers

Seonglim Lee, Sungkyunkwan University<sup>1</sup>  
Jae-hye Suk, Sungkyunkwan University<sup>2</sup>  
Hye Sun Hwang, Chungbuk National University<sup>3</sup>  
Min Jeong Kim, Sungkyunkwan University<sup>4</sup>

Weight control behaviors are strongly associated with subjective evaluation of one's body (Darshini & Rajesh, 2013; Wronka, Suliga, & Pawlinska-Chmara, 2013). Prior research pointed out that for many Korean female college students their desired body weights were lower than the actual weight (Sakamaki, Amamoto, Mochina, Shinfuku, & Toyama, 2005), and around 60 percent of the female college students categorized as either underweight or normal perceived themselves as heavy (Lee, Kim, & Yoon, 2005). The mismatch between perceived and actual weight were prevalent amidst the younger generations (Wronka et al., 2013; Chang & Christakis, 2003) and females were shown to have higher levels of such incongruence compared to the males (Strauss, 1999). Dissatisfactions arising from the incongruence in perceived and actual weight were associated with unhealthy weight control behaviors (UWCB) (Roy & Gauvin, 2010; Rahman & Berenson, 2010), such as skipping meals, use of diet pills, and forced vomiting (Neumark-Sztainer, Wall, Story, & Standish, 2012; Utter, Denny, Robinson, Ameratunga, & Crengle, 2012; Crow, Eisenberg, Story, & Neumark-Sztainer, 2008). Individuals also resort to reducing food consumption as a way to control their weight. However, such act is mostly focused on reducing the total amount of food intake while ignoring the components of consumption. Research shows that indiscriminant reductions in food intake are causing the "thin-obesity" phenomenon, where individuals seem fit but actually have high levels of body fat content (Yoo & Jo, 2009). In light of these issues, the present study aims to investigate the effects of the incongruence in perceived and actual weight, and the experience of nutritional education on dietary consumptions of Korean women.

The present study used data from "Korea National Health & Nutrition Examination Survey 2011" collected by the Ministry of Health & Welfare of Korea. The sample consisted of 661 young women aged between 19 to 38 years old with a normal BMI (18.6kg/m<sup>2</sup> to 24.9kg/m<sup>2</sup>). The study uses the nutrition intake of calories (kcal), carbohydrates (g), protein (g), and fat (g) measured on per day basis as the dependent variable. Independent variables include the perceived weight and the experience of nutritional education. Perceived weight is measured through the subjective assessment of the individual's body weight categorized as "self-perceived underweight", "self-perceived normal", and "self-perceived overweight" while experience of nutritional education is measured through a single question asking whether one has experienced nutritional education from public health centers, city halls, schools, or hospitals in the past year answerable by a "yes" or "no". The effect of individual income and levels of education are controlled for in the study. Income is categorized into low, middle-low, middle-high, and high while levels of education is classified into high school graduate, college graduate, and college graduate and above. SPSS version 18.0 for Windows is used to analyze the descriptive statistics and conduct multiple regression analysis to test the hypothesis.

The findings are as follows: First, 39.2 percent of Korean women aged between 19 to 38 years old perceive themselves to be heavier than their actual BMI category. Second, results of multiple regression analysis show that body image incongruence has a significant negative effect on the intake of calories ( $\beta=-0.126$ ,  $p<0.01$ ), carbohydrates ( $\beta=-0.105$ ,  $p<0.05$ ), proteins ( $\beta=-0.117$ ,  $p<0.01$ ) and fat ( $\beta=-0.090$ ,  $p<0.05$ ). Third, experience of nutritional education has a significant positive effect on the intake of fat ( $\beta=0.091$ ,  $p<0.05$ ). The present study suggests that perceived weight is an important factor affecting the dietary consumption of Korean women. 39.2% of Korean women are shown to experience incongruence in actual and perceived weight. These individuals have a higher

<sup>1</sup> Professor, Department of Consumer and Family Sciences, Sungkyunkwan University, 25-2 Sungkyunkwan-ro, Jongno-gu, Seoul, Korea. Email: clothilda@skku.edu.

<sup>2</sup> Doctoral Student, Department of Consumer and Family Sciences, Sungkyunkwan University, 25-2 Sungkyunkwan-ro, Jongno-gu, Seoul, Korea. Email: jaehye.s@skku.edu.

<sup>3</sup> Assistant Professor, Department of Consumer Science, Chungbuk National University, 1, Chungdae-ro, Seowon-gu, Cheonju, Chungbuk, Korea. Email: hsun@chungbuk.ac.kr.

<sup>4</sup> Master's Student, Department of Consumer and Family Sciences, Sungkyunkwan University, 25-2

Sungkyunkwan-ro, Jongno-gu, Seoul, Korea. Email: mikim@skku.edu.  
vulnerability to UWCB, which poses as a threat to their health. The study recommends an educational approach to provide information regarding proper dietary consumption in reducing weight and the need to provide opportunities to enhance one's self-esteem and confidence to foster solutions for the idolization of thinness problems from the level of the individual.

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