Letter

Letter: Relationships among Body Mass Index, Body Image, and Depression in Korean Adults: Korea National Health and Nutrition Examination Survey 2014 and 2016 (J Obes Metab Syndr 2019;28:61–8)

Seon Yeong Lee*

Department of Family Medicine, Sanggye Paik Hospital, Inje University College of Medicine, Seoul, Korea

JOMEF PISSN 2508-6235 eISSN 2508-7576

Received May 27, 2019 Reviewed June 5, 2019 Accepted June 8, 2019

*Corresponding author Seon Yeong Lee

https://orcid.org/0000-0002-8274-3654

Department of Family Medicine, Sanggye Paik Hospital, Inje University College of Medicine, 1342 Dongil-ro, Nowon-gu, Seoul 01757, Korea Tel: +82-2-950-1150 Fax: +82-2-950-1153 E-mail: sylee@paik.ac.kr

Depression is a prevalent psychiatric disease in Korea. Studies of depressive outcomes account for much of the growing literature on the relation between obesity and psychological morbidity.¹ Hong and Hong² investigated the association between body mass index (BMI) and depression, in addition to the relationships between body image perception, weight control behaviors and depression. They found that the risk of depression was higher in the underweight group than in the obese group. In multivariate analyses, the risk of depression was also high in the underweight group and the participants who perceived themselves as extremely lean or extremely obese. They found that weight control behaviors, such as fasting, skipping meals, and reducing food consumption were associated with increased prevalence of depression. The strength of this study is that it was conducted using data from a large, nationwide Korean-representative survey.

In the same context, Kim et al.³ investigated the relationships between body weight perception, disordered weight control behaviors, and depressive symptoms also using data from the Korea National Health and Nutrition Examination Survey. They reported that among women with obesity, those who underperceived their weight status showed less depressive symptoms compared to those who accurately perceived their weight status. In addition, among women with normal weight, those who overperceived their weight status reported more depressive symptoms compared to those who accurately perceived their weight status. However, this association was not seen in men. A recent study conducted in 72 countries found that Koreans have the highest preference for thin individuals over individuals with overweight or obesity compared to the participants from all other countries.⁴ The rapid social changes characterized by industrialization, urbanization, and Westernization over the past half-century in South Korea have flipped the traditional norms and values regarding body image.⁵ As a result, the thin-ideal is prevalent in South Korea, and having a slim body is viewed as an essential component for a successful marriage and career.⁵ Hong and Hong² reported high proportions of women and young adults as well as a high prevalence rate of cancer in the underweight group. The underweight group was found to have a low alcohol consumption rate, which might be due to stop drinking with the consequences of harmful health problems, and also had the highest level of stress awareness. The authors² noticed that these results ap-

Copyright © 2019 Korean Society for the Study of Obesity

⁽a) This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (http://creativecommons.org/licenses/by-nc/4.0/) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.



However, if the data were divided only by sex, the lack of research analysis by sex differences in relation to obesity and depression should be considered. For women, menopause is a significant life event, which in itself affects mental health, and is associated with depression.³ In Mexican population studies,⁶ obesity was associated with depression in women, whereas no association was found for men. Sex differences in the association between obesity and depression may be explained by cultural, ethnic, and social factors.⁷ Women are more frequently exposed to media, such as magazines and TV programs depicting "ideal bodies."7 However, there was a negative association between BMI and depression in middle aged and elderly Chinese men, but not in women.8 They noticed that early childhood starvation plays an important mediating role in this relationship.⁸ This is an important explanation for the impact of obesity on reducing depressive symptoms in the interaction between early childhood experiences of starvation and the Chinese culture of "body fat represents wealth" which affects individuals' dietary habit.9 Jung et al.10 showed that underweight increases the risk of developing depression in both longitudinal and cross-sectional studies. In addition, cohort studies showed that overweight reduces the risk of depression in men and increases the risk of depression in women. The association between overweight and depression differed by sex. It seems that the current ideal of thinness affects women more than their male counterparts and causes more psychological distress in women, which can, in turn, lead to depression.10

Obesity and underweight, disordered perception of body weight, and body image dissatisfaction cause mental distress and depression. In clinical practice, medical care providers should pay attention to the mental health of people who are underweight. Likewise, women who are overweight and obese populations should also be monitored for possible depression. Society needs to have attention and support on attempts to achieve healthy body weight.

CONFLICTS OF INTEREST

The author declares no conflict of interest.

REFERENCES

- Markowitz S, Friedman MA, Arent SM. Understanding the relation between obesity and depression: causal mechanisms and implications for treatment. Clin Psychol Sci Pract 2008; 15:1-20.
- Hong GW, Hong SM. Relationships among body mass index, body image, and depression in Korean adults: Korea National Health and Nutrition Examination Survey 2014 and 2016. J Obes Metab Syndr 2019;28:61-8.
- 3. Kim Y, Austin SB, Subramanian SV, Kawachi I. Body weight perception, disordered weight control behaviors, and depressive symptoms among Korean adults: The Korea National Health and Nutrition Examination Survey 2014. PLoS One 2018;13:e0198841.
- 4. Marini M, Sriram N, Schnabel K, Maliszewski N, Devos T, Ekehammar B, et al. Overweight people have low levels of implicit weight bias, but overweight nations have high levels of implicit weight bias. PLoS One 2013;8:e83543.
- 5. Pike KM, Dunne PE. The rise of eating disorders in Asia: a review. J Eat Disord 2015;3:33.
- 6. Zavala GA, Kolovos S, Chiarotto A, Bosmans JE, Campos-Ponce M, Rosado JL, et al. Association between obesity and depressive symptoms in Mexican population. Soc Psychiatry Psychiatr Epidemiol 2018;53:639-46.
- Rajan TM, Menon V. Psychiatric disorders and obesity: a review of association studies. J Postgrad Med 2017;63:182-90.
- Zhou Q, Wang T, Basu K. Negative association between BMI and depressive symptoms in middle aged and elderly Chinese: results from a national household survey. Psychiatry Res 2018; 269:571-8.
- 9. Wu Y. Overweight and obesity in China. BMJ 2006;333:362-3.
- Jung SJ, Woo HT, Cho S, Park K, Jeong S, Lee YJ, et al. Association between body size, weight change and depression: systematic review and meta-analysis. Br J Psychiatry 2017;211: 14-21.

