

World Congress on

Nutrition and Obesity Prevention Source

November 16-18, 2017, Barcelona, Spain

A U-Shaped Association Between Body Mass Index and Psychological Distress on the Multiphasic Personality Inventory: Retrospective Cross-Sectional Analysis of 19-Year-Old Men in Korea

Jeong Seok Seo, MD, PhD¹, Jong-Hyun Jeong, MD, PhD², Young-Eun Jung, MD, PhD³, Won-MyongBak, MD, PhD⁴, Young-Joon Kwon, MD, PhD⁵, Se-Hoon Shim, MD, PhD⁶ and Duk-In Jon, MD, Ph⁷

¹Department of Psychiatry, School of Medicine, Konkuk University, Chungju, Korea

²Department of Psychiatry, College of Medicine, The Catholic University of Korea, Seoul, Korea

³Department of Psychiatry, Jeju National University School of Medicine, Jeju, Korea

⁴Department of Psychiatry, Yeouido St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Korea

⁵Department of Psychiatry, Soonchunhyang University Cheonan Hospital, Soonchunhyang University, Cheonan, Korea

⁶Department of Psychiatry, Soonchunhyang University Cheonan Hospital, Soonchunhyang University, Cheonan, Korea

⁷Department of Psychiatry, Hallym University College of Medicine, Anyang, Korea

Personality tests, such as the Minnesota Multiphasic Personality Inventory (MMPI), might be more sensitive to reflect subclinical personality and be more state-dependent in an individual's lifetime, so they are good scales to predict the psychological distress regarding certain states. The aim of this study was to identify the specific pattern between body mass index (BMI) and psychological distress using the objective personality test. We investigated BMI and the Korean Military Multiphasic Personality Inventory (MPI). A retrospective cross-sectional study was conducted with 19-yr-old examinees who were admitted to the Military Manpower Administration in Korea from February 2007 to January 2010. Of 1,088,107 examinees, we enrolled 771,408 subjects who were psychologically apparent healthy possible-military-service groups. Afterwards, we reviewed and analyzed directly measured BMI and MPI results. In terms of the validity scales, the faking-good subscale showed an inverted U-shaped association, and faking-bad and infrequency subscales showed a U-shaped association with BMI groups. In terms of the neurosis scales, all clinical subscales (anxiety, depression, somatization, and personality disorder) also showed a U-shaped association with BMI groups. For the psychopath scales, the schizophrenia subscale showed a U-shaped association, and the paranoia subscale showed a near-positive correlation with BMI. In conclusion, a specific U-shaped pattern was observed between BMI and the MPI in 19-yr-old men in Korea. Underweight and obesity are related to psychological distress, so supportive advice and education are needed to them.