

TITLE: Weight Loss and Sexual Activity among Obese Individuals: establishing a causal link

ABSTRACT: Obesity may not only be linked to undesirable health outcomes but also to limitations in sexual life. The empirical literature that aims to establish a causal relationship between both focuses on individuals at rather young age, in particular on the question of whether overweight results in a postponed initiation to sexual activity. However, by focusing on adolescents, whose sexual behavior fundamentally differs from those of the adult population, the empirical literature misses out on the important question of whether obesity has detrimental effects on the sex life of adults, which typically represents an important aspect of life satisfaction. The empirical analysis is based on data from a randomized controlled trial, originally designed for testing the effectiveness of monetary incentives for weight loss. Contingent on random assignment to a control or two incentive groups, adult obese patients were offered financial rewards for achieving a certain weight-loss target. At the end of the trial, two pieces of information regarding the participants' sex life was gathered: (i) whether they are involved in a sexual relationship and (ii) how often they have sexual intercourse. These outcome measures are regressed on weight loss achieved over the study period. To solve the problem of possible reversed causality, e.g. weight gain due to sexual frustration, we pursue an instrumental variables approach and instrument weight-loss by randomly assigned group membership. That is, for identifying the effect of weight change on sexual activity we use only that part of the variation of the former that can be attributed to the randomization of the study population. Instrumental variables estimation yields a positive effect of weight loss on sexual activity among obese male individuals. While in the males' sample the estimates point in the same direction for the incidence of a sexual relationship and for the frequency of sexual intercourse, only the former effect proves statistically significant. The evidence for females is less clear which, however, is likely be explained by the small number of females participating in the trial. Applying instrumental variables estimation, for obese males the present analysis establishes a causal and positive effect of weight-reduction on the probability of being involved in a sexual relationship. Besides stressing the importance of weight-loss not only for improving medical but also general living conditions, this result may provide additional motivation to obese individuals who struggle for a lower body weight.