

Self-rated and objective health: evidence from Saint Petersburg residents survey

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The concept of health-related quality of life (HRQoL) comprises two aspects — objective and self-rated health. Measured body parameters compose objective health, whereas the perception of health refers to self-rated health that is assessed through questionnaires. In European countries, general population surveys have already been used for decades to assess the perception of health and functional status, whereas, in Russia, only objective measures are employed in the health evaluation. Such limitation may lead to the ineffective allocation of resources in healthcare policy because of the inadequate assessment. According to other studies, the results of the health-estimation process through self-rated and objective health indicators may deviate. The major cause is that self-assessed health tends to be affected by social, environmental, and personal factors such as optimistic or pessimistic outlook (Brissette, Leventhal, Leventhal, 2003; Layes, Asada, Kepar, 2012), vulnerability to depression (Han, Jylha, 2016; Schnittker, 2005), and emotions (Gallo, Matthews, 2003), while objective indicators are not. Therefore, the comparison of self-rated and objective health should be made to find out whether these groups of indicators assess health identically or not.

The research was based on the Saint Petersburg residents survey that was conducted by the International Centre for Health Economics, Management, and Policy of Higher School of Economics in 2020. 429 respondents over 18 that did not have any deviations from general health, indicators have been interviewed. For the analysis of the association between objective and self-rated health, obesity was chosen as the objective measure because the majority of respondents were young and almost did not have chronic conditions. Hence, obesity is the only disease that does not depend on age. EQ-VAS, EQ-5D-3L, and the self-assessed health question were used as self-rated health indicators. The last index was employed to estimate health in general, while EQ-VAS and EQ-5D-3L reflect the perception of health for today. The association between obesity and self-rated health indicators was estimated by the multivariate linear regression adjusted for sociodemographic conditions, habits, and comorbidities of obesity as it was evaluated in the literature (Jia, Lubetkin, 2005; Wu et al., 2013).

According to the results of the analysis, overweight and obesity did not influence self-rated health and EQ-VAS significantly. These findings were consistent with Wu et al.'s (2013) results and differ from the Lia and Lubetkin's (2005) research. The impact of chronic diseases on self-rated health was also insignificant, while the influence of age, gender (male), smoking, and doing physical exercises regularly on self-rated health was meaningful. In the health-evaluation by EQ-VAS, the negative impact of age was significant as well as the influence of heart and spine diseases and cancer. The impact of obesity was meaningful for two of four analyzed questions of EQ-5D-3L: mobility and usual activities. While mobility was influenced by diabetes and heart and joints diseases significantly, performing usual activities was affected by spine disorders, gender (male), marital status (have a partner), and doing physical exercises regularly. Therefore, people consider obesity and its comorbidities when they evaluate their health for today rather than when they estimate their health in general. Besides, the impact of obesity is meaningful

if people assess the spheres of their life associated with physical activities.

In conclusion, the study confirms that self-rated and objective health indicators do not give identical information about the health of young and middle-aged residents of Saint Petersburg. Hence, to improve the HRQoL both self-reported and measured health indicators should be considered in healthcare policy because they are not interchangeable.

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