Letter to the Editor

Effects of Socio-economic Status Inequality on Health Outcomes

Dear Editor

Studies about association between socio-economic status (SES) and health outcomes have been increasingly undertaken in Iran in the last decade.[1–3] The connection between SES and health outcomes should be systematically analyzed to yield better interventions.[4] In the following decades, reduction of socio-economic inequalities can be an achievable goal but we should provide the necessary knowledge for it.[5] It is apparent that we devote more effort and energy to explore a contextual effect of socio-economic inequality on health. Further studies need to be conducted in developing countries and unequal societies to investigate probable inequality.[6]

In the current issue of the Archives of Iranian Medicine in January 2017, we read an article by Katibeh, et al. titled "Association of Socio-Economic Status and Visual Impairment: A Population-Based Study in Iran". This article provides a new view on exploring the effect of SES inequality on a preventable disability.[7] The mentioned study showed that the overall prevalence of visual impairment leans towards lowest income group and a gap was confirmed between the advantaged and disadvantaged in both genders. Also, they reported that more than 80% of cases were in all SES level with no difference between different levels. They reported that the prevalence rates of visual impairment in high, moderate and low SES were 5.9%, 40.4%, and 12.6%, respectively. In addition to this, people with worse visual conditions were more concentrated in disadvantaged groups such as less educated individuals. Finally, they showed a significant SES inequality in prevalence of visual impairment in Varamin district.[7]

The key similarity in articles that associate between SES and health variable is calculating SES by a number of variables such as expenditure, income, and consumption information variables to create new SES and divide people into socio-economic groups. Two main methods for analyzing the pattern of relationships of several categorical dependent variables are multiple correspondence analysis (MCA) and principal component analysis (PCA). Despite the differences in procedure, high concurrence has been observed in their result.[8] In developing countries, due to the availability of asset data, PCA is increasingly applied.[9] Katibeh, et al. used the PCA to create new SES variable that is a common procedure to identify variables with greater impact on the whole variance of variables and create a new SES variable.[10] To differentiate SES scores into SES categories, two methods are available: in the first method, arbitrary cut-off points are used to classify SES, so that lowest 40% of scores are classified as 'poor', the highest 20% as 'rich' and the rest as the 'middle' group;[11] in the second method, SES scores are divided into quintiles.[12] Katibeh, et al. used the first method, but we believe that since the SES scores in the mentioned study were distributed uniformly and, forasmuch as the difference of SES scores between adjoining quintiles should be even, the second method is better for SES classification in Katibeh's study. In conclusion, the article acknowledges SES inequality in prevalence of visual impairment, which is a valuable finding because 80% of all visual impairment can be preventable and about 90% of the world's visually impaired live in low-income settings.[13] Nevertheless, the key point to this finding is that the contribution of socio-economic factors, such as age, is not clear, as regards about 65% of all people who are visually impaired are aged 50 years and older. Therefore, decomposing the inequality index to socio-economic factors could be a supplementary analysis that we recommend to the authors.

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