

Age-specific disease network for the major disease in Korea

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Abstract

Objectives: The purpose of this paper is to analyze the relationship among major diseases in Korea using social network analysis and word cloud based on the literature data. Differences across three age groups are also studied.

Methods: We used social network analysis to draw a network graph for major diseases based on the relationships among the diseases by a literature search, using the prevalence rate and the mortality of such diseases from 2011 Korean National Health Nutrition Examination Survey and causes of death statistics in Korea

Results: We find that smoking and obesity is the most important factor of causing other diseases. Except obesity, anemia, hepatitis, atopic dermatitis and some other diseases, most diseases become more common and more dangerous across the older age group. We can visually recognize these results from the graphs made by social network analysis and wordle.

Conclusions: We made the age-specific social network graphs between 24 major diseases in Korea across three age groups. We could know most disease became more and more prevalent and severe with people being older.

Keyword: social network analysis, disease network, Korean disease network Word-cloud,