ABSTRACT



Possible factors influencing the development of the number of pharmacists in China: A time series VAR model analysis from the perspective of supply and demand theory

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Objective: The supply and demand theory is used as a perspective to analyze the impact and prediction of factors such as the number of consultations in medical institutions on the number of hospital pharmacists in China.

Methods: A total of 21 years of time-series data on the number of pharmacists, doctors and nurses in China's hospitals, the number of consultations, the per capita health cost and the per capita GDP were collected from 2002 to 2022, and a vector auto-regressive model influencing the number of pharmacists in China was established to analyze the dynamic process of the influence of the number of consultations, the per capita health cost and the per capita GDP on the number of pharmacists and the direction of the influence in China.

Results: There is a unidirectional Granger causality and long-term cointegration relationship between the number of consultations and the number of pharmacists, and the number of consultations will have a greater impact on the number of pharmacists in the long run and will be more stable in the later period; there is also a unidirectional Granger causality and long-term cointegration relationship between the per capita health cost and the number of pharmacists, and the per capita health cost will have a greater impact on the number of pharmacists in the short run.

Conclusion: The rise in the number of pharmacists will occur along with increases in the number of visits, health costs per capita, and GDP per capita, with health costs per capita having a greater impact on the number of pharmacists in the short term, and visits and GDP per capita having a greater impact on the number of pharmacists in the long term and being more stable in the later years.

Key words: number of pharmacists, vector auto-regressive model, number of consultations, per capita health costs, GDP per capita

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