Study on the Layout of 15-Minute Community-Life Circle in the State of "Community Segregation" Based on Poi: Shengwei Community and Other Two Communities in Chongqing

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Abstract: This paper takes community segregation during major infectious diseases as the background, based on the physiological needs and safety needs of citizens during home segregation, and based on the selection of convenient facilities and medical facilities as the main research objects. Based on the POI data of public facilities in Chongqing, the spatial distribution characteristics of the convenience and medical facilities in the 15-minute living circle centered on three neighborhoods in Shapingba, namely Shengwei Community, Anju Commmunity and Fengtian Garden Community, were explored by means of GIS spatial analysis. The results show that the spatial distribution of convenience and medical facilities in this area has significant clustering characteristics, with a point-like distribution pattern of "dense in the west and sparse in the east", and a grouped and multi-polar spatial structure. The spatial structure is multi-polar and has an obvious tendency to the intersections and residential areas with dense pedestrian flow. This study provides a preliminary exploration of the distribution of medical and convenience facilities within the 15-minute living circle of a segregated community, which makes up for the lack of spatial research in this area.

Keywords: ArcGIS, community segregation, convenient facilities; distribution pattern, medical facilities, POI, 15-minute community life circle

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