

Supplementary File S1: Urban environmental characteristics of the data.

Variable	Explanation	Measurement Method
Greening rate	Proportion of urban built-up area covered by greenery to total area of the built-up area	Green coverage area of urban built-up areas/total area of built-up area
Urbanisation rate	Proportion of urban permanent population to the total permanent population	Urban permanent population/total permanent population
Road density	Total mileage of the road network as a percentage of total urban area (km/km ²)	Total mileage of road network/total urban area
Population density	Population per unit land area (persons /km ²)	Number of permanent urban residents/total urban area
Air quality (PM _{2.5})	Particulate matter with diameters of 2.5 µm or less (PM _{2.5}) in the ambient air	Annual mean value for each city
Tertiary hospitals	Number of tertiary hospitals in the city	— —

Note: Data were obtained from the China Statistical Yearbook of 2018 [69].

Supplementary File S2: Dimensions and measurements of social participation, mental health, sense of safety, and community cohesion.

Variable	Cronbach's α	Cronbach's α Based on Standardised Terms	Explanation
Social participation	0.827	0.873	<ol style="list-style-type: none"> 1. Frequency of recreational arts groups activities. 2. Frequency of physical activity group activities. 3. Frequency of senior citizens' association. 4. Frequency of skill correspondence type group activities. 5. Frequency of knowledge learning groups. 6. Frequency of volunteer groups. 7. Frequency of religious based groups.
Mental health	0.939	0.943	<ol style="list-style-type: none"> 1. Worried about some small things. 2. Don't want to eat; I have a bad appetite. 3. Even with the help of family and friends, I still can't get rid of my depression. 4. Feeling inferior to others. 5. Unable to concentrate when doing things. 6. Feeling down. 7. Feeling that doing anything takes a lot of effort. 8. Feeling hopeless about the future. 9. Feeling like my life is a failure. 10. Feeling scared. 11. Poor sleep. 12. Feeling unhappy. 13. Speaking less than usual. 14. Feeling lonely. 15. Feeling that people are not very friendly to me. 16. Feeling that life is meaningless. 17. Crying.

18. Feeling nervous.

19. Feeling that people don't like me.

20. Feeling that life cannot continue.

Sense of
safety

0.825

0.835

1. Worried about the risk of hanging out and
staying.

2. Worried about the risk of going out alone at
night.

3. Worried about house burglary.

4. Worried about the risk of being targeted if the
money is exposed.

5. Worried about child abduction and trafficking.

Community
cohesion

0.763

0.771

1. Neighbourhood familiarity.

2. Neighbourhood trust.

3. Neighbourhood help.
