

## Campus Living Environments that Contribute to Mental Health: A Path Analysis Based on Environmental Characteristics

**Authors :** Jing Ren, Guifeng Han

**Abstract :** The mental health of most college students in China is negative due to the multiple pressures of academics, life, and employment. The problem of psychological stress has been widely discussed and needs to be resolved immediately. Therefore, six typical green spaces in Chongqing University, China, were selected to explore the relationship between eight environmental characteristics and students' stress relief. A path analysis model is established using Amos26.0 to explain the paths for environmental characteristics influencing psychological stress relief. The results show that (1) tree species diversity (TSD) has a positive effect on stress relief, thus green coverage ratio (GCR), the proportion of water area (WAP), visual green index (VGI), and color richness (CR) have both positive and negative effects; (2) CR could reduce stress directly and indirectly, while GCR, TSD, WAP, and VGI could only reduce stress indirectly, and the most effective path is TSD→extent→stress relief; (3) CR can reduce stress more greatly for males than females, CR and VGI have better effects for art students than science students. The study can provide a theoretical reference for planning and designing campus living environments to improve students' mental health.

**Keywords :** public health, residential environment, space planning and management, mental health, path analysis

**Conference Title :** ICURPT 2023 : International Conference on Urban, Regional Planning and Transportation

**Conference Location :** Macau, China

**Conference Dates :** December 11-12, 2023