Mental Health, Deprivation, and the Neighborhood Social Environment: A Network Analysis

By Eoin McElroy, Jason C. McIntyre , Richard P. Bentall, Tim Wilson, Keith Holt, Cecil Kullu, Rajan Nathan, Andrew Kerr, Katerina Panagaki , Mick McKeown, Pooja Saini, Mark Gabbay, Rhiannon Corcoran

SUMMARY

By Maic D'Agostino

This study sought to identify some of the effects of neighborhood social environments, low social cohesion, and social disorder on mental health, particularly in deprived neighborhoods, through social network analysis in a community with some of the highest health and well-being inequalities in the United Kingdom.

Researchers hoped network analysis would better capture how specific nodes – such as cohesion, deprivation, and anxiety – interacted, rather than a broad, traditional analytical model.

Face-to-face interviews were conducted in the northwest of England with a random probability sample taken within the region from high-deprivation and low-deprivation sub-regions relatively equal in population size. These areas were selected based on population size, level of disadvantage, coherent shared identity, and infrastructure for policy delivery.

Results indicated that paranoia formed a significant bridge between neighborhood social environment and mental health, while neighborhood cohesion was linked directly and negatively to anxiety. Conversely, neighborhood environments were not connected directly to the depression cluster, which the authors believe may indicate that social environment more directly influences anxiety and paranoia than depression or hallucination. Social disruption had the strongest influence on the environment and was linked to each studied mental health difficulty either directly (with paranoia and anxiety) or indirectly (with depression and hallucination).

No significant differences between three levels of deprivation (low, mid, and high) were present in the overall connectivity of items, but the networks were structured differently. No significant bridges were identified between the neighborhood and mental-health nodes for the low-deprivation group and just one bridge in the mid-level group. But three bridges formed between domain clusters in the high-deprivation network, involving social cohesion and paranoia. Researchers suggested that this finding may give credence to a "tipping point," in which a neighborhood environment contains enough negative attributes to impact the mental health of its community members.