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Improving mental health through the regeneration of deprived neighborhoods: A prospective controlled quasi-experimental study

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Background Policymakers often target deprived neighborhoods for regeneration with the expectation that population health will improve, since housing and neighborhoods of low quality, as well as the social and economic determinants of poor health, are concentrated in the most deprived areas. Our aim was to examine the effects of Communities First, a Welsh Assembly Government community-led program of neighborhood regeneration targeted at the 100 most deprived electoral wards in Wales (United Kingdom) on mental health.

Methods Information on Communities First regeneration activities in 35 intervention lower super output areas (LSOAs) (n=4,197 subjects) and 75 control LSOAs (n=6,695 subjects) were linked to data from the Caerphilly Health & Social Needs Electronic Cohort (eCATALyST) study, a prospective cohort study in 2001 (before regeneration) and 2008 (after regeneration). Communities First was delivered through multi-agency partnership boards in each of the 22 local authorities. Boards worked with residents to identify and secure funding for regeneration activities. The primary outcome was the change in Mental Health Inventory (a population-based measure of anxiety and depressive symptoms) between 2001 and 2008 recorded in eCATALyST. We examined the changes in mental health in intervention LSOAs in comparison to control LSOAs, using propensity score matching (1:1 ratio) to balance the level of socioeconomic disadvantage across groups. Sensitivity analysis

examined the impact of length of residence in an intervention area and six types of regeneration activity.

Findings 1,500 regeneration projects were funded 2001 to 2008. Before regeneration mental health was worse in the intervention (mean = 66.6, SD = 22.3) than control group (mean = 71.0, SD = 20.8). After propensity score matching, regeneration was associated with an improvement in the mental health of intervention compared to control group residents (β coefficient = 1.54; 95% CI 0.50 to 2.59), suggesting inequalities in mental health narrowed. We found evidence of a dose response relationship between length of residence and improvements in mental health ($p = 0.05$ for trend). We could not attribute improvements to any one type of regeneration activity.

Interpretation

Targeted regeneration directed by the residents of deprived urban communities may help to reduce inequalities in mental health.

Contributors

GG, JW, and DF critically appraised the research papers. CW, DF designed the methods classifying interventions funded by Communities First. GG, DF, FD, SR and DF designed the statistical analysis. RAL, AJ and SR led the use of SAIL methodology. JW is principal investigator. DF is the principal investigator of the eCATALyST study. JW and GG wrote the manuscript and all authors contributed to critical revision of the final version. All authors have contributed to the scientific content of the abstract and have seen and approved the final version for publication.

Declarations of interest

We declare no competing interests.