



Dental trauma according to “Healthy Cities” criteria

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OBJECTIVES

The hypothesis of the study was that in deprived communities of Curitiba, Brazil, there would be a lower prevalence of dental trauma in twelve-year-old schoolchildren in the “better off” than in “worse off” areas, categorised according to Health Cities policy criteria.

METHODS

Data were derived from two complementary studies: a) the panel survey gathered data on socio-environmental variables in 29 deprived communities with different degrees of implementation of healthy public policies; b) the survey study collected individual clinical data on dental trauma, and on covariates considered potential confounders. The covariates referred to children’s socio-economic, demographic, and dental characteristics. Fourteen variables from the panel study were factor-analysed.

RESULTS

Three principal components were extracted: physical environment, public social policies, and social cohesion. Rank correlation indicated that PCA scores explained 42% of the variance for dental trauma. The final analysis used meta-analysis and meta-regression. Only gender remained significant as an individually measured covariate: males had more dental trauma than females. The physical environment component had the strongest relationship with dental trauma. The public social policies component was also related to dental trauma.

CONCLUSIONS

Healthy public policies related to Healthy Cities were significantly associated to dental trauma of children in relatively deprived communities.

Figure 1 - Rank correlation by ranks from PCA combined scores and percentage prevalence of dental trauma of twenty-nine areas of Curitiba; 2000.

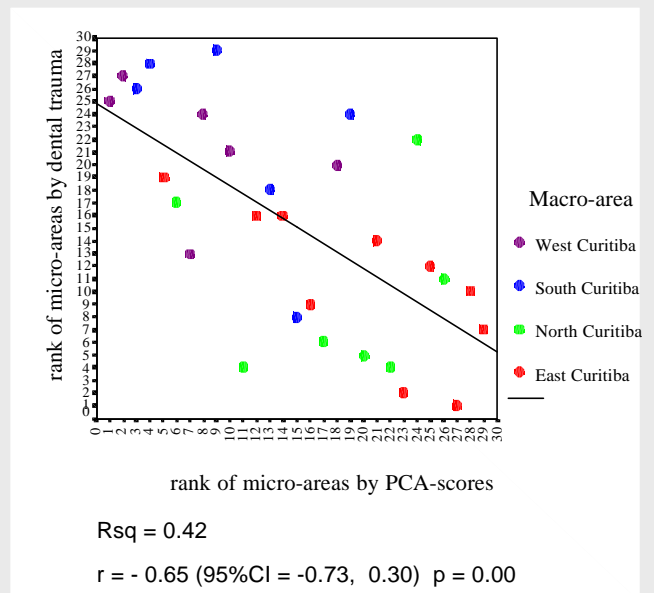
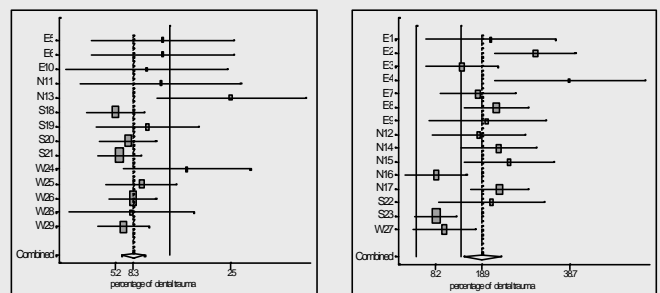


Figure 2 - Meta-analysis of all areas in the study of dental trauma, with separate estimates of effect for better off and worse off areas, Curitiba; 2000.



Better off

Worse off