OP19

HOW AND WHY DO PEOPLE COMMUTE BY CAR? A MIXED-METHODS INVESTIGATION

A Goodman,^{1*} J Panter,² C Guell,² D Ogilvie² ¹*Department of Epidemiology and Population Health, London School of Hygiene and Tropical Medicine, London, UK;* ²*MRC Epidemiology Unit and UKCRC Centre for Diet and Activity Research, Cambridge, UK*

10.1136/jech.2011.143586.19

Background Reducing car use and promoting physically active travel would be expected to decrease air pollution, traffic crashes and diseases associated with sedentary lifestyles.

Objective To investigate how and why people commute by car.

Design Mixed-methods cross-sectional study, integrating qualitative data from in-depth interviews with quantitative data from questionnaires.

Setting Cambridge, UK.

Participants Commuters to Cambridge. 47 participants (23–68 years, 26 female) completed interviews, 1142 (17–71 years, 782 female) completed questionnaires.

Outcome measures Regular car commuting, defined as always/usually commuting by car in the past four weeks. We also examined whether regular car commuters drove all the way (unimodal) or used cars plus another mode (multimodal – eg, park and ride).

Analysis Initial qualitative analyses generated hypotheses and conceptual models which we tested in the quantitative data. Key quantitative findings formed the starting point for further thematic analyses of the qualitative data.

Results Regular car commuting was independently associated with female gender, longer commuting distance, having a driving licence, more household cars and availability of workplace parking. There was no independent effect of age, presence of children, long-term illness or difficulty walking. Socio-economic characteristics (education, housing tenure and area deprivation) showed strong univariable effects which appeared entirely mediated by commuting distance. Qualitative analysis suggested that this reflected high house prices in central Cambridge, meaning less wealthy households moved further out to achieve goals such as home ownership. Nevertheless, cars were generally affordable in this relatively affluent population, reducing the barrier which distance posed to labour-force participation. Car access was also valued by many non-regular car commuters in letting them overcome short-term challenges such as illness. Yet car commuting also introduced constraints, for example pushing drivers with flexible working hours to travel earlier (40% of drivers started work by 8:30 vs 20% of walkers and cyclists). Finally, only workplace parking availability strongly predicted unimodal versus multimodal car commuting (90% unimodal if free workplace parking, 65% if charged parking, 20% if no parking). 84% of multimodal car journeys involved walking or cycling.

Conclusion In car-centred environments, car access enables individuals to reconcile life goals such as home ownership and employment, and to meet unexpected challenges. Nevertheless, car dependence also imposes constraints, particularly on those who are less affluent or who have less control over their working hours. Car commuters were much more likely to incorporate some walking or cycling into their journey if their workplace restricted parking or charged for it, suggesting potential health benefits.