Potential effect of centre size on continuity of care and healthcare performance

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Barker and colleagues show that smaller practices have higher continuity of care, as measured by proportion of contact with the same doctor.1 Quality of the patient-doctor interaction is another aspect of continuity. Dunbar proposed that the number of meaningful stable relationships that can be maintained determines the optimum size of human groups.2 Practices managing a number of patients that is close to the Dunbar optimum may provide better quality interactions and thus achieve better outcomes. We urge the authors to evaluate the association between practice size and hospital admissions.

Secondary care studies that demonstrate better outcomes in larger hospitals typically assess acute surgical conditions,3 4 where procedural experience rather than quality of relationship is the main determinant of performance. Secondary care teams managing complex, long term conditions require not only a critical mass of expertise but also continuity and good relationships. The association between centre size and performance for these teams may be an inverted “U shape,” meaning that a healthcare centre is most efficient at an optimum size, as predicted by Dunbar’s number.

The challenge of maintaining continuity of care also exists in secondary care. Organising large practices into smaller teams may facilitate the pooling of resources while allowing healthcare professionals to work within the limits of Dunbar’s number. This strategy has been trialled in primary care5 6 and might also benefit secondary care teams managing complex long term conditions, with anecdotal data from Glasgow indicating improved care quality when the renal unit was split into four teams (R Mactier, personal communication, 2016).

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