Do informal social connections among patients in a practice contribute to effective care?

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While family medicine often provides poorer-quality disease-specific care than other specialties do, health care systems with a strong focus on and support of primary care have better outcomes for patients, lower costs, and more equitable access to care than those with a specialist preference. This phenomenon has been called the *primary care paradox*.[1-3]

Various mechanisms have been suggested to explain the phenomenon, such as first-contact accessibility, patient-centred care, coordinated care, the trust your patients have in you because of the relationship built over time, and the way your colleagues and other professionals support you.[4] I posit another possible reason family physicians extend their reach beyond their abilities—one that, until the digital revolution put the focus on social networking, has been practically invisible, although it has been around as long as healers have: our patient networks.

How we connect

How patients and family doctors connect is not random. In many cases, patients either recommend their doctors to or ask their doctors to take on a friend, acquaintance, or family member. This creates a denser than normal network that, with all its subnetworks and interconnections, can diffuse a family doctor's advice faster and further than the doctor alone could. Consider the following:

- For most family doctors, patient networks are quite closely linked—family, friends, neighbours, co-workers, etc—and overlap from one family doctor to the next via other social networks, such as schools, workplaces, or places of worship.
- Family doctors deal with overall health and health issues, not just specific problems, so they are just as likely to provide general advice and information as specific help.
- Information about a subject of common interest spreads to those in the common interest group (network), regardless of who their doctors are.
- Different kinds of social support can improve health in different ways.[5]

In my life as a family doctor, I believe that I lucked into something very special because my ability to help is often way beyond my abilities as an individual. Some of my extended effectiveness might have little to do with how well trained or clever I am. It might be about how general health information moves from person to person, within patient networks outside of the doctor's office.

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Influence of networks

Can patient networking be yet another mechanism to explain why health care systems oriented toward primary care perform surprisingly well? It might be simple mathematics.

It has always been true, of course, that people are influenced by their friends and their friends' friends. Christakis and Fowler used this fact to find correlations among up to 3 degrees of separation (the friend of your friend's friend) for such things as obesity,[6] smoking,[7] and happiness.[8] They have also used this connection to try to create a kind of early warning system for contagious outbreaks[9-11] by monitoring the friends of randomly selected individuals.

Can we not adapt and use those same systems to detect how patient networks influence the reach of family practices? We primary care researchers and family doctors should be investigating this.

Future steps

Where do we start? I believe the first step is to figure out how to measure the connection density or local clustering coefficient of a family physician's patient network and to determine the extent to which it is greater than what you would expect if it were simply random selection, as well as how far out the connection reaches before it loses steam.

We then need to measure the connection in a large number of contexts and see if there is a correlation between outcomes at the population level and density. Is it different between solo and group practices? What happens when you introduce nurse practitioners and physician assistants? How does the connection differ among family practices offering comprehensive care, family physicians with focused practices, and various types of specialty practices? How prevalent must the medical issue be to be affected by the density of the patient network? Are there any harms associated with denser patient networks?

If it turns out that social connection among patients in a family practice improves health for important, refractory problems at the population level, then health services decision makers need to know and start taking it into account as they reform the sector. Providers could encourage connectivity among their patient rosters by limiting new patients to a defined geographic area. It might even be worthwhile to encourage patients within a practice and district to participate in more formal and organized ways of networking such as self-help groups

and walking clubs. With an understanding of the influence of the social connections among our patients, perhaps we could leverage these networks to make the contribution of primary care even more important.

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