Assessing the Potential of an Innovative Healthcare Delivery Model: Shared Medical Appointments

The burden of chronic diseases is on the rise due to sedentary lifestyles, unhealthy eating behaviors and ageing populations. Health systems all over the world are struggling to handle this demand. Shared medical appointments (SMAs) are an alternative to traditional one-on-one appointments for routine care of chronic diseases. SMAs offer an innovative, interactive approach to healthcare delivery. In this approach, a group of five to fifteen patients with similar chronic conditions - such as asthma, diabetes, glaucoma, etc. - meet with a doctor simultaneously. Each patient, in turn, receives full one-on-one attention including diagnosis and prescription, while the others look on and listen.

SMAs have been successfully implemented as an alternative to traditional one-on-one doctor visits for diabetes, cardiac preventive care, asthma and other chronic diseases in a few US hospitals, including the Cleveland Clinic, the Palo Alto Medical Foundation, Kaiser Permanent Medical Centers and the Dartmouth Hitchcock Medical Center. Even though SMAs often prove to be successful where adopted, they have not been widely implemented, in part because their benefits have not been rigorously proven (Ramdas and Darzi 2017). In their recent review paper, Edelman et al. (2012) indicate that the evidence base for SMAs is very scant. Furthermore, the existing research has focused mainly on the effects of SMAs on medical outcomes, rather than on how they influence the experiences and operating behaviors of patients. Unpacking these intermediate effects is crucial, since doing so illuminates when SMAs are likely to be most and least helpful, and how they might be designed to most effectively improve patient outcomes. To our knowledge, no prior work has examined the underlying mechanisms by which SMAs may induce changes in patient experiences and behaviors, including their level of learning, satisfaction, compliance with prescribed medications and adherence to scheduled appointment times.
Our goal is to rigorously assess the potential of shared medical appointments as an alternative care delivery model. Through a randomized control trial of 1,000 patients receiving care at one of the largest eye hospitals in the world, we empirically evaluate the behavioral implications and medical efficacy of shared medical appointments, relative to traditional one-on-one appointments. We focus on the treatment of glaucoma, a chronic disease which results in gradual and irreversible loss of eyesight, and the second leading cause of blindness worldwide. It is estimated that 79.6 million people will have glaucoma by 2020 (Quigley and Broman 2006) and because of its chronic and progressive nature, it accounts for over 10 million visits to physicians each year.

In our study, we randomly assign half of the patients to receive shared medical appointments, in which their care is delivered concurrently with the care of three or four peers, who are also receiving treatment for glaucoma. The remaining patients receive traditional one-on-one care. In order to examine intermediate outcomes – such as patient knowledge and satisfaction – as well as longer term outcomes – such as compliance to medications, adherence to appointments, and overall medical efficacy –, we designed the study to encompass four medical appointments over a full year, and we track patients longitudinally over time, recording the composition of each group to identify moderators of the efficacy of SMAs.

Preliminary results obtained with the data we have so far suggest that the knowledge and satisfaction level of patients who attend shared medical appointments is significantly higher than that of the patients who attend one-on-one appointments. We find that shared medical appointments result in an 8% increase in patient knowledge and a 1.4% increase in patient satisfaction when compared to one-on-one appointments. Our results also indicate decreased lateness and increased compliance during the RCT, both at statistically significant levels, for patients in both treatment and control groups.
These findings have important practical implications at four levels. First, the increase in patient knowledge and satisfaction of treated patients in our study provides empirical support for the idea that SMAs may improve, rather than degrade, the healthcare experiences of patients. These findings can enlighten practitioners and policymakers regarding the benefits of conducting SMAs, mitigating possible objections to their implementation (Ramdas and Darzi 2017). Second, from the interviews we conducted with hospital administrators and doctors, we learned that space constraints, need for facilitators, training of staff and concerns about confidentiality put obstacles in the way of applying SMAs. Our results reveal how SMAs can be efficiently administered, while yielding outcomes that are operationally, experientially, and medically beneficial. Third, the results obtained from the analyses done with lateness and compliance variables show that SMAs cause changes in patient behaviors that hold promise for reducing the costs and improving the quality of patient care. Fourth, our insights into the mechanisms at work will help doctors optimize the composition of patient groups that are assigned to have shared appointments together.

References