Re-imaging health care delivery in the era of COVID-19

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The COVID-19 pandemic has exposed the deficiencies of the current healthcare system of the disconnect between primary and tertiary care and increasing subspecialisation, the focus on acute episodic care rather than on prevention in a time where chronic disease prevails and an inefficient use of healthcare resources. Herein, we present the case for an alternative model of healthcare delivery – Shared Medical Appointments – which are efficient, effective, empowering and can be transitioned to the virtual environment successfully. We highlight the barriers to implementation and how these can be overcome.

Key words: COVID-19; Shared Medical Appointments; chronic disease; preventative health

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January 25th 2022 marked 2 years since the first case of COVID-19 was recorded in Australia (1). Since then, Australia along with the rest of the world has ridden several waves of infection, the most recent being driven by the BA4/5 variant of SARS-CoV-2. The numbers are staggering – approaching 10M confirmed SARS-CoV-2 cases and over 12,000 deaths (2) in Australia alone. The focus to date has been on the acute management of COVID-19; public health strategies to minimise infection and the development and subsequent delivery of vaccination. The current BA4/5 variant driven wave has pushed the health system to the brink – in Victoria a "Code Brown" was declared on 19th January 2022 in the face of soaring hospital admissions across the state (3).

Yet even before 2020 the health system was under enormous strain. Whilst the pandemic has exposed the challenges in our healthcare system it also presents the opportunity to think innovatively and shift the paradigm. Blecher and colleagues (4) identified three aspects highlighted by the pandemic that negatively impact healthcare delivery in Australia. These are 1) poor integration with separate funding of hospitals and general practice and siloing of specialists within the tertiary hospital sector; 2) the emphasis on treatment of acute illness rather than prevention and promotion of wellness (known as salutogenesis); and 3) the "monumental wastage and inefficiency of utilising healthcare resources in the Australian healthcare system". Whilst the issue of funding is outside the control of healthcare workers, clinicians have the opportunity to influence the second and third issues. To do so, however, requires a shift in the culture of medicine which harnesses the expertise of the entire patient care workforce – nursing, medicine and allied health (5) - and places the patient at the centre of clinical decision making.

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The current clinical service delivery model is one that is highly medicalised and focused on acute and episodic care. This model has evolved from an era where acute infectious diseases predominated. Since circa 1980 there has been a growth in chronic non-communicable disease together with ageing and multimorbidity which confers the greatest burden on the healthcare system. Chronic disease, which includes conditions such as diabetes, cardiovascular disease, kidney disease, back pain, arthritis, cancer, pulmonary disease, osteoporosis and mental ill-health are common affecting one in two Australians (6). One in five Australians have two or more of these chronic diseases and people with chronic diseases account for 50% of hospital admissions (6). Yet despite this change in the demographic of illness, the approach to treatment has remained the same. A transformational change in the health system is required which improves both clinical effectiveness and cost efficiency. It must also address increasing challenges in engaging and empowering patients. The Shared Medical Appointment model is an approach which encapsulates all these aspects to deliver comprehensive medical and self-management, and which results in improved patient outcomes, reduced presentation to emergency departments and hospital admission rates and has a positive effect on the patient experience (7, 8).

Shared Medical Appointments (SMAs) or group consultations are “a series of individual office visits sequentially attending to each patient's unique medical needs individually, but in a supportive group setting where all can listen, interact and learn” (9). Underlying medical conditions may be similar, or consequential to determining factors in common with other participants. SMAs have been tested extensively in many countries and have been adopted as a process in the emerging discipline of lifestyle medicine. We have demonstrated them to be culturally safe and accessible for marginalised groups like Aboriginal Australians (10), Syrian refugees and Pacifika living in western Sydney (unpublished). SMAs in a time of the pandemic have proved to be effective when used online as well (11) with utilisation increasing substantially (12) improving access to clinical care (13).

SMAs can be face-to-face, virtual, or a hybrid of the two. Patient numbers within the SMA vary, however 8-12 has been found to be optimum for patient engagement and to be financially viable (14). The duration of the SMA is about 2 hours, which includes a period of triage by the facilitator to ascertain each person’s agenda and identify commonalities; education by the facilitator or third party (for example, dietitian; exercise physiologist; diabetes educator) follows and then finally the consultation with the doctor. Consent is obtained with explanation of the limitations of this consultation model and the importance of confidentiality.

The flow of the SMA is skilfully handled by the facilitator, who must structure the consultation such that the focus remains on the current patient; respond to cues from participants and the doctor; check on understanding; manage time-equity for all participants; and engage other patients in the discussion if current doctor-patient interaction is potentially clinically helpful, for example when addressing barriers in behaviour change. In turn each patient has a consultation, including a limited examination if appropriate and necessary, after careful consent. This may occur in the presence of others with consent (for example, a foot examination; blood pressure measurement) or in a separate adjoining room. If required, a separate individual consultation can be scheduled. Review of results occurs during the consultation with consent for sharing within the group. Often common themes across the group can be addressed simultaneously, with each learning from the other and increasing the efficiency of the provider. A management plan is devised with the individual participant again with others present and learning. To view a 5-minute video illustrating a Shared Medical Appointment go to: https://vimeo.com/424945208.

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SMAs have been found to be a positive experience with patients and providers due to these nine factors (8):

1. Group exposure combats isolation, which in turn improves health self-efficacy
2. Patients learn about disease self-management vicariously by witnessing others' experiences
3. Patients feel inspired by seeing others who are coping well
4. Group dynamics lead patients and providers to developing more equitable relationships
5. Providers feel increased appreciation toward colleagues leading to increased efficiency
6. Providers learn from the patients how better to meet their patients' needs
7. Adequate time allotment of the SMA leads patients to feel supported
8. Patients receive professional expertise from the provider in combination with first-hand information from peers, resulting in more robust health knowledge
9. Patients see how the physicians interact with fellow patients, which allows them to get to know the physician and better determine their level of trust.

Our work with SMAs in primary care has led us to extend SMAs into a form of 'programmed' SMA, which potentially provides an even more effective platform for a range of interventions for chronic diseases and conditions (15). Programmed SMAs are a sequence of SMAs in a semi-structured form providing discrete educational input relating to a specific chronic illness topic. These allow for a set number of SMAs run in a sequenced 'active learning' format coordinated by a trained SMA facilitator (practice nurse/allied health professional). The opportunity to engage allied health in this model is particularly attractive. Allied health professionals comprise ~20% of the healthcare workforce and their contributions are tied with improved patient outcomes, risk and harm reduction and improved health system efficiency (5).

Barriers to the broad implementation of SMAs exist. The first is resistance by colleagues largely due to uncertainties and unclear expectations (16), which can be addressed through the education of clinicians in this model of care. SMAs teaching has been introduced into the Deakin University medical school (17) and, to the best of our knowledge, is the only Australian medical school to do so. SMAs do feature in the Medical Deans of Australia and New Zealand Discussion Paper: Training Tomorrow's Doctors: all pulling in the right direction (18 p. 11), noting a "team-based approach built on such models of care is able to provide holistic care that accounts for the social and personal impacts of comorbid conditions". Skilled facilitators, tailoring of SMAs to patient groups, leadership support and teamwork are reported to be important for successful delivery (16). The Australasian Society of Lifestyle Medicine has pioneered SMAs in Australia, led by the authors, providing facilitator training and whole of service orientation to the process. It is our opinion that there is an imperative to train the emerging workforce in this model now.

The second major barrier is the funding model of primary and hospital care alluded to by Blecher et al (4). Health expenditure has increased in Australia in parallel with the prevalence of chronic diseases, ageing population and expensive healthcare technologies (19). Funding of the healthcare system in Australia and fragmented across state and federal governments, supplemented by private health insurance and patient co-payments. García-Goñi et al (19) have proposed a 22-policy action model for reform of Australian health funding to establish a chronic-care focused healthcare system called Mandatory Integrated (Public & Private) Health Insurance.

The syndemics of chronic disease and the COVID-19 pandemic has brought to the fore the need for healthcare reform including both the funding and delivery of clinical services. The world has changed and so must medicine. The community expectations and demands from the healthcare providers are high and it is the ability to meet these in respect of emotional and human features of the consultation,

and the clinical outcomes, that matter most (20). We attest that the Shared Medical Appointment model should be adopted widely replacing, or at least supplementing, traditional one-to-one consultation for chronic disease management reserving the latter model for acute or specific needs in an effort to improve the health and well-being of the community and lessen the strain on a fracturing healthcare system.

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1. Australian Government. First confirmed case of novel coronavirus in Australia 2020 [Available from: https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/first-confirmed-case-of-novel-coronavirus-in-australia.
2. Australian Government. Coronavirus (COVID-19) case numbers and statistics Canberra2022 [accessed 16th August 2022]
3. ABC News. ABC, editor. on line2022. [cited 2022]. Available from: https://www.abc.net.au/news/2022-01-19/what-is-code-brown-emergency-in-victorian-hospitals/100765890.
4. Blecher GE, Blashki GA, Judkins S. Crisis as opportunity: how COVID-19 can reshape the Australian health system. Med J Aust. 2020;213(5):196-8 e1.
5. Philip K. Allied health: untapped potential in the Australian health system. Aust Health Rev. 2015;39(3):244-7.
6. Australian Institute of Health and Welfare. Chronic Disease 2022 [Available from: https://www.aihw.gov.au/reports-data/health-conditions-disability-deaths/chronic-disease/overview.
7. Edelman D, Gierisch JM, McDuffie JR, Oddone E, Williams JW, Jr. Shared medical appointments for patients with diabetes mellitus: a systematic review. J Gen Intern Med. 2015;30(1):99-106.
8. Kirsh SR, Aron DC, Johnson KD, Santurri LE, Stevenson LD, Jones KR, et al. A realist review of shared medical appointments: How, for whom, and under what circumstances do they work? BMC Health Serv Res. 2017;17(1):113.
9. Egger G, Dixon J, Meldrum H, Binns A, Cole MA, Ewald D, et al. Patients' and providers' satisfaction with shared medical appointments. Aust Fam Physician. 2015;44(9):674-9.
10. Stevens JA, Egger G, Morgan B. A novel, culturally appropriate approach to weight management in Aboriginal and Torres Strait Islander people. Med J Aust. 2018;209(1):68.
11. Egger G, Stevens J, Lim K, Tuuhetoka C. Online shared medical appointments in the COVID-19 age 2020 [Available from: https://insightplus.mja.com.au/2020/16/online-shared-medical-appointments-in-the-covid-19-age/.
12. Birrell F, Lawson R, Sumego M, Lewis J, Harden A, Taveira T, et al. Virtual group consultations offer continuity of care globally during Covid-19. Lifestyle Medicine. 2020;1(2).
13. Tokuda L, Lorenzo L, Theriault A, Taveira TH, Marquis L, Head H, et al. The utilization of video-conference shared medical appointments in rural diabetes care. Int J Med Inform. 2016;93:34-41.
14. Noffsinger EB. The ABCs of Group Visits. An implementation manual for your practice.: Springer; 2013.
15. Egger G, Stevens J, Ganora C, Morgan B. Programmed shared medical appointments: A novel procedure for chronic disease management. Aust J Gen Pract. 2018;47(1-2):70-5.
16. Graham F, Tang MY, Jackson K, Martin H, O'Donnell A, Ogunbayo O, et al. Barriers and facilitators to implementation of shared medical appointments in primary care for the management of long-term conditions: a systematic review and synthesis of qualitative studies. BMJ Open. 2021;11(8):e046842.
17. McKie C, Axtens M, Britt K, Dwyer KM. The introduction of shared medical appointments into the Doctor of Medicine (MD) curriculum - a multifaceted opportunity for teaching Australasian Society of Lifestyle Medicine Annual Meeting; Virtual2020.
18. Medical Deans of Australia and New Zealand. Training Tomorrow's Doctors: all pulling in the right direction. Sydney, Australia2021.
19. García-Goñi M, Fouda A, Calder RV, Paolucci F. A new funding model for a chronic-care focused healthcare system in Australia. Health Policy and Technology. 2018;7(3):293-301.
20. Bowling A, Rowe G, McKee M. Patients' experiences of their healthcare in relation to their expectations and satisfaction: a population survey. J R Soc Med. 2013;106(4):143-9.

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