Shared medical appointments

An adjunct for chronic disease management in Australia?

Garry Egger
Andrew Binns
Mary-Anne Cole
Dan Ewald
Lynne Davies
Hamish Meldrum
John Stevens
Ed Noffsinger

Background
The incidence of chronic disease continues largely unabated in modern western societies. While the content (physiology, determinants) of these diseases is well studied, processes of dealing with them at the clinical level have been less well considered. Shared medical appointments (SMAs) or group consultations (also often referred to as group visits) 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'.[1]

Objective
To examine the potential acceptability of SMAs for the management of chronic diseases in the Australian context.

Discussion
SMAs were developed in the US to improve access to care, utilise peer support, reduce costs and improve patient and provider satisfaction in the management of chronic disease. An SMA is a comprehensive medical visit, not just a group education session, where a significant part of the added value comes from the facilitated peer interaction, particularly around aspects of self-management and empowerment. While more studies are required to compare outcomes with conventional one-on-one consultations, the reported gains in time efficiency, patient numbers managed, and patient as well as provider satisfaction, are sufficient to justify further consideration of a trial of SMAs in Australia.

Keywords
chronic disease/therapy; diabetes mellitus, type 2; consultation, doctor–patient relations; delivery of healthcare; health services

While Australians (and those from other western countries) are living longer,[2] new findings suggest that we may not be living better.[3] Chronic conditions, most of which are largely preventable, now make up about 60% of all presentations to primary care.[4] Primary prevention through public health is paramount for dealing with this. However, increasing disease incidence suggests that new approaches in primary care might also need to be considered.

Primary care consultations have traditionally occurred in a one-on-one situation between clinician and patient. This is appropriate for acute disease and injury, but may not be optimal for chronic diseases that need complex, extended and ongoing treatment. Chronic disease management also requires extensive information to be repeated at length (eg. that relating to lifestyle modification) and it is unrealistic to expect a single practitioner to cover all the elements required in the time available for a standard consultation. Because chronic diseases have a limited underlying range of lifestyle and/or environmentally related aetiologies, prescriptive advice can also become repetitive, potentially reducing both provider and patient satisfaction.[1,5]

Primary care could benefit from a shift to an emphasis on process, as much as an increase in knowledge of content relating to chronic disease. Processes include self-management education, brief interventions, activity scheduling, motivational skills, counselling, health coaching, and behavioural and environmental change. This reinforces a broader multidisciplinary approach as is now supported by the Medicare Benefits Schedule (MBS) for chronic disease, but which may be improved by new processes of delivery. An alternative model of clinical engagement that is worthy of consideration in this respect is the shared medical appointment (SMA).

SMAs and chronic disease

SMAs or group consultations, were first instituted in the US in 1996.[1,5] They have since been trialled for adults with a range of conditions, including

Table 1. Types and composition of SMAs

Generic	Type		Composition	
	DIGMAs	**PSMAs**	**Heterogeneous**	**Homogeneous**
SMAs: Medical and allied health consultation and group session with up to 15 patients	Drop-in group medical appointments (DIGMAs): regularly scheduled SMAs for follow-up visits that offer assessments and peer support	Physical shared medical appointments (PSMAs): SMA with opportunity for physical assessments of individuals in private	Varying gender/age/ ailment eg. patients with different types of chronic disease with similar lifestyle-based aetiologies (diabetes; heart disease; COPD).	Similar ailment or background eg. diabetes; Indigenous men; elderly groups

type 2 diabetes,[6] heart disease,[7] hypertension,[8] arthritis,[9] metabolic syndrome,[10] cancer,[11] chronic obstructive pulmonary disease (COPD)[12] and obesity,[13] and for children and their caregivers.[14] In most reported cases, the results, including patient and provider satisfaction, have been positive, and where comparisons have been made, the results from SMAs usually equal or exceed individual care.[5]

There are two SMA models (*Table 1*): the DIGMA or 'Drop in Group Medical Appointment' for follow-up visits and the 'Physical SMA' (PSMA) with the opportunity for private physical examination. SMAs are defined as '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'.[1] DIGMAs and PSMAs provide medical care from start to finish – the same as that delivered during routine primary care visits, and often more. When applied to chronic illness, these can be delivered as comprehensive medical visits (billable at individual rates) focusing on chronic disease, but run in a supportive group setting of consenting patients with similar concerns (who have signed confidentiality agreements), and with 2–4 appropriate health professionals.

SMAs in practice

The care delivery team for SMAs is typically led by a general practitioner (GP) or advanced practice nurse. The team can include a group facilitator (eg. psychologist, nurse, diabetes educator) and sometimes a pharmacist, dietitian, exercise physiologist or other allied health professional (AHP). A documenter may be included to record comprehensive chart notes in real time as care is being delivered. Throughout the session, typically held for 90 minutes, GPs are involved in the usual tasks of history-taking, examination, medical decision-making and advising patients in conjunction with AHPs. As such, an SMA is a comprehensive medical visit, not just a group education session, where a significant part of the added value comes from the facilitated peer interaction, particularly around aspects of self-management and empowerment. An example of how a SMA might run in an Australian setting is described in the case scenario below..

SMAs are not meant to replace standard consultations, but rather to complement the judicious use of individual consultations. They can be designed to meet the needs of both patients and the primary care practice by incorporating the interests and skills of participating clinicians and team care providers. They may be customized for any particular clinic, depending on the individual resources available. In addition, they could be a useful learning modem for clinical students.

Potential benefits of SMAs

Efficiencies achieved by SMAs seem to come through cross-peer education and group support.[5] SMAs also decrease repetition, increase patient and provider satisfaction and reduce patient waiting lists. The addition of supporting contributions from other health professionals to the SMA allows the GP to focus on specific medical issues. Together with the potential for reduced requirements for ongoing visits and improved patient outcomes, this has increased cost-effectiveness and led to the model's acceptance under the US Medicare system (*Table 2*).

The relationship between patients and their doctor is a key determinant of success in the management of chronic disease. SMAs provide the opportunity to strengthen this relationship by allowing patients to spend a considerably longer period of time with their GP. More than 400 peer-reviewed articles addressing patient outcomes have been published since 2001, most of which show benefits of the SMA model (in many cases over and above those achieved through the traditional consultation model of managing chronic disease). A review of randomised controlled trials of group consultations for patients with type 2 diabetes showed positive outcomes, such as fewer urgent care and emergency department visits and hospitalizations, improved glycaemic control, fewer specialty care visits, improved diabetes knowledge and health behaviour, increased patient and provider satisfaction, and improved provider productivity.[15] SMAs have also been found to reduce costs for the management of diabetes groups by 20–30%.[16] Further studies are required to compare outcomes with conventional one-on-one consultations, but the reported gains in time efficiency, patient numbers managed and patient as well as provider satisfaction, are sufficient to justify further consideration of a trial of SMAs in Australia.

Potential barriers to SMAs in Australia

It is widely believed that medical consultations in Australia have to be one-on-one to be

Table 2. Some established advantages for group consultations in chronic disease management in US settings[5]

A. For patients
1. Improved quality of, and access to, care
2. Extra time with own doctor and more relaxed pace of care
3. Peer support and feedback from patients with similar conditions
4. Multidisciplinary care from a range of (2–4) providers
5. Answers to questions they might not have thought to ask (because others in the group ask)
6. An additional healthcare choice
7. Greater self-management education and attention to psychosocial issues
B. For clinicians
1. Increased physician productivity/cost-effectiveness/time-effectiveness
2. Better management of waiting lists
3. Reduced repetition of information/advice
4. An opportunity to get off the fast-paced treadmill of individual visits
5. Can contain costs and increase clinical income
6. A chance to get to know patients better in an interactive setting
7. Real help from the multidisciplinary team with the opportunity in Australia to coordinate Care Plan Reviews and Team Care Arrangements (TCAs)

billable under the MBS. Yet close scrutiny of the MBS and discussions with Medicare reveal that consultations may occur in the presence of others (as quite often happens when consulting family groups or carers and patients simultaneously), provided all other MBS requirements are met. Confidentiality is also an important consideration under these circumstances. This has been overcome in the US through confidentiality agreements signed by participants (who, it should be remembered, are there voluntarily) at the start of every group visit session, and no problems with this have been reported.[4,5,15,17]

Other potential barriers to the introduction of group visits in Australia include the lack of fine detail about the operational procedures of such a system within the local primary care environment; initial reluctance of patients to share personal information (although, as discussed above, this has been easily overcome in overseas environments); logistics and planning to set up and coordinate SMAs; the need for appropriate facilities and space; the availability of team members; the reluctance of practitioners to change their form of consultation; and a lack of understanding in Australia regarding the business model.

Instigation of the SMA process would need to be gradual and accompanied by a significant evidence base and training in operational processes. Ultimately, it is expected that such a system would require new MBS item numbers to reduce potential confusion with billing processes. Public education would also be necessary to explain the process; however, it is expected that word-of-mouth from patient innovators would have a powerful impact in this respect.

We speculate that SMAs could hold particular promise for patients with low levels of health literacy, including the aged, migrant groups, the Indigenous, and lower socioeconomic individuals, for whom effective intervention has been shown to be most difficult.[18,19] It might be anticipated that the additional time, patient education and peer support in such a setting would ensure a greater understanding of chronic disease self-management and treatment adherence, thus leading to better patient outcomes. Structured trials of the process in varied settings could help confirm or refute this.

Currently a semi-qualitative assessment of patient and provider awareness and satisfaction with the SMA system is being carried out in Australia by the lead author. A follow-up pre- and post-assessment of group visits in comparison with usual care in the Australian healthcare system would then be desirable to precede any potential introduction of the process locally.

Summary

SMAs, which provide multidisciplinary contributions and peer support from individuals with similar conditions, seem to be time-effective and efficient for providers. In addition, a chronic disease management paradigm that makes full use of SMAs has been applied and studied in the US, Canadian and Dutch settings,[4,5,17] providing a basis for such a system in Australia. As chronic disease prevalence continues to rise and consequent costs threaten to cripple the Australian healthcare system, innovative approaches to chronic disease management need to be considered. The SMA model is one such approach. The time may be right to trial this model under Australian conditions to test its potential efficacy and effectiveness.

Key points

- Chronic diseases continue to increase in developed and developing countries and there is little sign of abatement.
- Dealing with chronic disease requires attention to process as well as to content.
- The traditional one-on-one model of medical consultations may not be the optimum intervention for the about 60% of primary care visits now due to chronic conditions.
- SMAs, or group consultations, offer an adjunct form of health management with the potential for improved health outcomes, increased efficiencies, faster access to care, improved patient and provider satisfaction, and reduced costs.
- SMAs could be particularly useful not only for the elderly and chronically ill, but also for migrants, the Indigenous, and lower SES groups (where health literacy might be low but peer support high).

Case scenario for a SMA*

Ten patients with type 2 diabetes who have care plans in place have opted to attend a 90-minute SMA in a multidisciplinary medical centre. Patients are seated in a circular arrangement in a room with a white board and computer

facilities. In a small, adjacent examination room a practice nurse (PN) can take basic observations and update medical records. Light refreshments are offered. All patients have received a package of information explaining the group consultations and what to expect, and all have signed confidentiality agreements.

The appointed facilitator (nurse, psychologist or diabetes educator etc) explains the session and answers questions. The GP then enters the room and proceeds to consult with patients one at a time, providing advice, explaining significant findings from blood tests and taking questions and input from others; the process is managed through the facilitator. Self-management education is discussed with the whole group and individual prescriptions and pathology requests are printed out as needed. The medical records are documented by the PN, including the diabetes cycle-of-care requirements. If a patient needs privacy, he or she is taken into the examination room by the GP or PN while the facilitator or GP continues consultations or discussion with the remaining group.

All patients are given the opportunity to interact with the GP, peers and other health professionals present over the 90 minutes. The GP then leaves the room and any further discussion is finalised with the PN and facilitator.

MBS items claimable vary depending on the time taken with each patient, but an item 23 or 36 is billed. Care plan reviews (732) and the monitoring and support nurse item number (10997) may be used. If required, additional procedures such as ECGs can also be claimed.

Follow-up visits are made according to individual requirements and patients are given the opportunity to book in to further PSMAs or regular DIGMAs ('drop in group medical appointments') if desired.

*The form of SMA can vary according to conditions and facilities available.

Resources

www.groupvisits.com – co-author Ed Noffsinger's website describing applications of shared medical appointments in the US context

Authors

Garry Egger AM, MPH, PhD, Adjunct Professor of Health and Applied Sciences, Southern Cross University, and Centre for Health Promotion and Research, NSW. eggergj@ozemail.com.au

Andrew Binns AM, BSc, MBBS, DRCOG, DA, FACRRM, general practitioner, Goonellabah Medical Centre, Lismore, New South Wales

Mary-Anne Cole RN, is Nursing Manager, Ochre Health, Grafton GP Superclinic, Grafton, NSW

Dan Ewald BMed, MPH&TM, MAppEpid, FRACGP, FACTM, FAFPHM, GAICD, general practitioner, Lennox Head Medical Centre and Bullinah Aboriginal Health Service, Ballina and Clinical Advisor, North Coast NSW Medicare Local, Ballina, NSW

Lynne Davies MBBCH, MRCGP, general practitioner, Tintenbar Medical Centre, Ballina, NSW

Hamish Meldrum MBChB, FRACGP, DRANZCOG, general practitioner and Director, Medical Services, Ochre Health, Sydney, NSW

John Stevens RN, PhD, FACON, Associate Professor, Health and Human Sciences, Southern Cross University, Lismore, NSW

Ed Noffsinger PhD, former vice-president of SMAs & Group-Based Chronic Disease Management at Harvard Vanguard Medical Associates/Atrius Health and originator of the DIGMA & PSMA models, Santa Cruz, CA, USA

Competing interests: None

Provenance and peer review: Not commissioned; externally peer-reviewed.

References

1. Noffsinger E. Running group visits in your practice. NY, Springer, 2009.
2. Harris B. Public health, nutrition and the decline of mortality: the McKeown thesis revisited. Soc Hist Med 2004;17:379–407.
3. Wang H, Dwyer-Lindgren L, Lofgren KT, et al. Age-specific and sex-specific mortality in 187 countries, 1970–2010: a systematic analysis for the Global Burden of Disease Study 2010. Lancet 2012;380:2071–94.
4. AIHW. Australia's Health 2010. Canberra: Commonwealth Dept of Health, 2012.
5. Noffsinger E. The ABC of Group Visits. Springer, London, 2012.
6. Riley SB, Marshall ES. Group visits in diabetes care: A systematic review. Diab Educ 2010;3696:936–34.
7. Masley S, Phillips S, Copeland JR. Group office visits change dietary habits of patients with coronary artery disease-the dietary intervention and evaluation trial (D.I.E.T.). J Fam Pract 2001;50:235–39.
8. Kawasaki L, Muntner P, Hyre AD, Hampton K, DeSalvo KN. Willingness to attend group visits for hypertension treatment. Am J Manag Care 2007;13:257–62.
9. Shojania K, Ratzlaff M. Group visits for rheumatoid arthritis patients: a pilot study. Clin Rheum 2010;29:625–28.
10. Greer DM, Hill DC. Implementing an evidence-based metabolic syndrome prevention and treatment program utilizing group visits. J Am Acad Nurse Pract 2011;23:76–83.
11. Visser A, Prins JB, Hoogerbrugge N, van Laarhoven HW. Group medical visits in the follow-up of women with a BRCA mutation: design of a randomized controlled trial. BMC Women's Health 2011;11:39.
12. Fromer L, Barnes T, Garvey C, Ortiz G, Saver DF, Yawn B. Innovations to achieve excellence in COPD diagnosis and treatment in primary care. Postgrad Med 2010;122:150–64.
13. Paul-Ebhohimhen V, Avenell A. A systematic review of the effectiveness of group versus individual treatments for adult obesity. Obes Facts 2009;2:17–24.
14. Wall-Haas CL, Kulbok P, Kirchgessner J, Rovnyak V. Shared medical appointments: facilitating care for children with asthma and their caregivers. J Pediatr Health Care 2012;26:37–44.
15. Edelman D, McDuffie JR, Oddone E, et al. Shared medical appointments for chronic medical conditions: A systematic review. US Department Veterans Affairs VA-ESP project #09-010: 2012.
16. Clancy DE, Dismuke CE, Magruder KM. Simpson KM, Bradford D. Do diabetes group visits lead to lower Medical care charges? Am J Manag Care 2008;14:76.
17. Berger-Fiffy J. The 'nuts and bolts' of implementing shared medical appointments. J Ambul Care Manage 2012;35:247–56.
18. Clement S, Ibrahim S, Chrichton N, Wolf M, Rowlands G. Complex interventions to improve the health of people with limited literacy: A systematic review. Patient Educ Couns 2009;75:340–51.
19. Noffsinger E. Reaching out to the poor, disenfranchised, and underserved: Testing the limits of group visits. AMGA's Group Practice Journal 2013;62:8–15.

correspondence **afp@racgp.org.au**