The art and science of chronic disease management come together in a lifestyle-focused approach to primary care

Introduction

Lifestyle Medicine (LM) has been defined as ‘...the application of environmental, behavioural, medical and motivational principles to the management (including self care and self-management) of lifestyle-related health problems in a clinical and/or public health setting’ (2). Professional associations in LM are active in the US, Europe and Australasia and are being developed in other countries. Post-graduate specialties are currently offered in a growing number of Universities. Yet apart from recognising the contribution of lifestyle and behavioural factors to disease, the field has yet to develop its own pedagogy. If it is to have a function, its contributions to existing care need to be elaborated.

The basis of a LM

As a developing ‘art-science’ LM can be considered in two parts: First, the knowledge base, or epidemiology (the science), involves an understanding of the determinants that lead to chronic disease. We have previously categorised these under the mnemonic NASTIE ODOURS (3) (which we have expanded here to NASTIE MAL ODOURS; Table 1) to take account of broader causal factors associated with deeper concepts of meaninglessness, alienation and loss of identity in displaced populations.

These are wide-ranging and cover the different levels of determinants shown in Figure 1, in line with Rose’s (4) seminal ‘...cause of the cause’ approach to disease prevention.

A second component of LM is the process, or ‘art’ of modifying disease determinants and outcomes.

Attention to process

Without a differentiation in process, LM would be a simple variant of standard medical practice, albeit targeting a limited number of behavioural and/or environmental determinants, in contrast to infectious disease agents. An alternative process for clinical engagement with particular advantages for managing lifestyle-related problems is shared medical appointments (SMAs). SMAs (also called group visits) have been 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’ (7). The process, as developed in the USA and now trialed in several countries, has been used as an adjunct option for general medical consultations. However, it has particular relevance for lifestyle-related chronic diseases. Effectiveness has been demonstrated with a...
range of such problems including Type 2 diabetes (8), heart disease (9), hypertension (10), arthritis (11), metabolic syndrome (12), cancers (13), COPD (14) and obesity (15). In evaluation trials, the outcomes of SMAs, including patient and provider satisfaction, have been positive, and where comparisons have been made, the results usually equal or exceed individual care, with beneficial cost-effectiveness (16).

Shared medical appointments typically involve a multi-disciplinary team including a GP, nurse, group facilitator (e.g., psychologist, diabetes educator, exercise physiologist, etc.) and a documenter for recording comprehensive chart notes in real time. Throughout the session, typically held for around 90 min, GPs are involved in the usual tasks of history-taking exams, medical decision-making and advising patients in conjunction with other Allied Health Professionals. As such, an SMA is a comprehensive medical visit, not just a group education session. The particular advantages are shown in Table 2.

Shared medical appointments are obviously not a single answer to chronic disease management. New processes at the clinical level will need to be added as these are developed. As a bridge between clinical medicine and public health, LM should also incorporate processes for managing more ‘upstream’ determinants of disease to avoid criticism of ‘victim blaming’ (3). This is one of the key responsibilities of the group facilitator who is charged with influencing the direction of peer interaction. There are several types of SMAs as described by Noffsinger as appropriate for the US health care system (7), although these will need modification for other health care systems.

**SMAs and standard clinical practice**

Shared medical appointments and other evolving clinical processes are not meant to replace standard consultations, but rather to complement the judicious use of individual consultations where appropriate. The relationship between a patient and his or her doctor and multi-disciplinary care team are key determinants of success in chronic disease management. SMAs provide the opportunity to strengthen this relationship by allowing patients to spend considerably longer with their GP than in a standard 5–10 min consultation and with peer support from other patients.

Over 400 peer-reviewed articles addressing patient outcomes from SMAs have been published in the decade since 2001, many of which show benefits of the process over and above those achieved through the traditional 1:1 process of managing chronic disease. A review of randomised controlled trials of group consultations for type 2 diabetes patients, showed positive outcomes such as fewer urgent care
visits, emergency department visits, and hospitalisation, improved glycaemic control, fewer specialty care visits, improved diabetes knowledge and health behaviour, increased patient and provider satisfaction and improved provider productivity (16). SMAs have also been found to reduce costs in diabetes groups by 20–30% (17). And while more studies are required comparing outcomes with conventional 1:1 consultations, the reported gains in time efficiency, patient numbers managed, and patient as well as provider satisfaction, should be sufficient to justify the use of SMAs as a standard (and perhaps ‘flag-bearing’) process of a LM approach to chronic diseases.

Shared medical appointments are unlikely to be chosen by all health care providers and/or patients. However in early trials of the process in Australia, we have found widespread interest and acceptance among both health care providers and patients (18) (although less so amongst older patients). A submission is currently with the Medical Services Advisory Committee for a unique Medicare item number for SMAs for lifestyle-related health problems.

**Barriers and benefits of SMAs**

Because national health systems were generally developed in an era of infectious diseases, billing systems have evolved around acute consultations. This presents a challenge for more extensive lifestyle-related consultations and hence new billing systems will need to be set up for chronic disease processes like SMAs. Confidentiality is also an important consideration. This has been overcome in the USA through confidentiality agreements signed by participants (who, it should be remembered, are there voluntarily) at the start of every group visit session.

Shared medical appointments hold particular promise for patients with low levels of health literacy such as the aged, migrant groups, the Indigenous and lower socio-economic individuals, for whom treatment has been shown to be problematic. It might be anticipated that the additional time, patient education and peer support in such settings would ensure a greater understanding of self-management and treatment adherence, thus leading to better patient outcomes. Although the system has been established in the more privatised USA health care system, it has just as much relevance in more government-managed systems where costs and time-savings are vital for ongoing central health support.

**Summary**

Lifestyle medicine is an evolving art-science designed to compliment the management of chronic diseases associated with modern lifestyles. While the lifestyle and environmentally related determinants (content) of chronic diseases have been reasonably well delineated, the applications (processes) of clinical prescription for modifying these have been less well studied, leading to a fall-back on default processes that were developed in a different disease era. A shift in treatment methods from the 1:1 (expert-patient) consulting interaction to a form of SMAs as a ‘flagship’ form of patient/provider interaction may be one point of differentiation between lifestyle and conventional medicine which benefits both forms of clinical interaction. With chronic disease incidence continuing unabated, it seems obvious that alternative processes for managing the ‘diseases of civilisation’ are, at best, worth testing in structured trials, and worst, debating.

G. Egger,1,2 D. Katz,3,4 M. Sagner,5 J. Dixon,1,6 J. Stevens1,2

1Australian Lifestyle Medicine Association (ALMA), Sydney, Australia
2Health and Human Sciences, Southern Cross University, Lismore, NSW, Australia
3American College of Lifestyle Medicine (ACLM), Woodburn, OR, USA
4Yale University Prevention Research Centre, New Haven, CT, USA
5European Society of Lifestyle Medicine (ESLM), Paris, France
6Primary Care Unit, Baker International Diabetes Institute, Melbourne, Vic., Australia

**Correspondence to:**

Garry Egger, 14 Arthur St., Fairlight, Sydney, NSW 2094, Australia
Tel.: + 61 2 99777753
Email: eggergj@ozemail.com.au

**References**


**Disclosure**

None.

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