PERSPECTIVE

IJCP THE INTERNATIONAL JOURNAL OF CLINICAL PRACTICE

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

Shared Medical Appointments suit chronic disease management

Changes in patterns of living result in changes in the nature and causes of disease. The industrial revolution of the late 18th century, and the technological revolution of the late 20th century are cases in point. The former was associated with a decline in infectious diseases; the latter with an increase in lifestyle and environmentally induced chronic diseases (1). Health practices are typically modified to deal with such changes, hence the recent rise in interest in lifestyle-oriented forms of clinical practice.

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. Primary care consultations have historically occurred in a one-on-one situation between clinician and patient, or more recently, in a one-on-x group education session involving an 'expert' and small (e.g. 8–12) patient group. Various counselling principles such as cognitive behaviour therapy, reflective listening, motivational interviewing, self-management and patient-centred care are proposed for improving outcomes within this relationship. However while such practices, and new principles of persuasion and behaviour change from other disciplines (5,6), are important for chronic care counselling, they represent only modifications to an existing process. The 1:1 counselling approach has served humanity well for acute disease and injury, but it may not be as appropriate for the complex, extended and ongoing requirements of lifestyle-related chronic disease problems. These require more than a standard, short consultation that can be delivered by a single practitioner. Chronic diseases also have a limited underlying range of lifestyle and/or environmentally related aetiologies as shown in Table 1. Hence, prescriptive advice can become extended and repetitive, potentially reducing both provider and patient satisfaction.

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

Table 1 Lifestyle and environmental determinants for chronic disease

Nutrition – excess energy, fat, sugar, salt, malnutrition
(in)Activity – inactive leisure and/or work time; excessive sitting
Stress – 'Burnout', 'brown out', anxiety, depression
Techno-pathology – adverse effects of technology, injury
Inadequate sleep – sleep time, sleep disorders
Environment – pollution, endocrine disrupting chemicals
Meaninglessness – 'Learned helplessness'
Alienation – from society
Loss of culture/identity, etc. (as in indigenous/migrant groups)
Occupation – shift work, occupational hazards, bullying
Drugs, smoking and alcohol – iatrogenesis 'recreational' drugs
Over (and Under) exposure – sunlight, skin cancers, vitamin D deficiencies
Relationships – support, belonging, care
Social inequality – trust, ratio between rich and poor

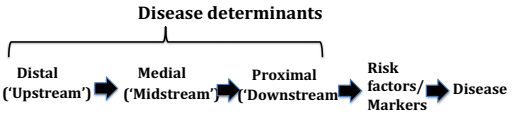

Figure 1 A hierarchy of determinants and risk factors/ markers in chronic disease

Table 2 Advantages of shared medical appointments (SMAs) in a lifestyle medicine approach to chronic disease management

For patients
Improved quality of, and access to care
Extra time with own doctor and more relaxed pace of care
Peer support and feedback from patients with similar conditions
Multi-disciplinary care from a range of (2–4) providers
Answers to questions they might not have thought to ask (because others in the group ask)
An additional health care choice
Greater self-management education and attention to psychosocial issues
For clinicians
Increased physician productivity and cost/time effectiveness
Better management of waiting lists
Reduced repetition of information/advice
An opportunity to get off the fast-paced treadmill of individual visits
Improved clinical income through cost containment
A chance to get to know patients better in an interactive setting
Real help from the multi-disciplinary team with the opportunity to coordinate multi-disciplinary care plans

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 hospitalisations, 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.

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Disclosure

None.

Paper received 13 June 2014, accepted 18 June 2014