Exemplary medical care or Trojan horse? An analysis of the 'Lifestyle Medicine' movement

Background

The rise of non-communicable diseases, many of which share common risk factors of smoking, alcohol, poor diet, and physical inactivity, has resulted in calls to develop and expand lifestyle medicine, giving "hope to those suffering from chronic illness"[1]. It has been argued that lifestyle medicine should be recognised as a new medical speciality[2], with primary care leading.

There are numerous drivers for lifestyle medicine (see Box 1) and many aspects are valid and valuable. Our analysis does not aim to argue against the importance of these drivers as many of them are well informed. Instead we seek to balance existing discussions with aspects that, in our opinion, have been less well considered. With this in mind, we focus on the unintended consequences of uncritical endorsement and application of lifestyle medicine including the infiltration of pseudoscience, profiteering, and the potential for widening health inequalities by a continued focus on the 'individual'. We stress the need for greater attention to public health and community-level interventions and a more critical approach to current practice.

What is 'Lifestyle Medicine'?

Medical practice guidelines often advise on 'lifestyle factors'. These are usually in the form of individual behaviours that impact on health, framed as modifiable, often related to smoking, alcohol intake, physical activity, diet, and, to a lesser degree, sleep quality, stress and social factors. However, translation of guidelines into achievable real-world benefits outside clinical trials is challenging.

The British Society of Lifestyle Medicine (BSLM) describes lifestyle medicine as *"an established approach that focuses on improving the health and wellbeing of individuals and populations….It requires an understanding and acknowledgement of the physical, emotional, environmental and social determinants of disease"*[1]. Society membership is open to registered health professionals, who can take a diploma, and associate membership is available to others, such as reflexologists, homeopaths, herbalists, and naturopaths.

Some have called for greater inclusion of lifestyle medicine education in professional training, including medical curricula[3], based on evidence that knowledge of lifestyle medicine interventions is lacking [4, 5]. In the USA, board certification in lifestyle medicine involves the ability to issue 'lifestyle prescriptions' with the definition *"the systematic practice of assisting individuals and families to adopt and sustain behaviours that can improve health and quality of life"*[6]. Current UK training in lifestyle medicine aimed at GPs is offered by the BSLM, the British Association for Nutrition and Lifestyle Medicine (BANT) and Prescribing Lifestyle Medicine (run by Clinical Education). Full BANT membership to practicing UK therapists is available only to registrants on the Complementary and Natural Healthcare Council, which includes colon hydrotherapists, naturopaths, and reflexologists.

Trojan horse and conflicts of interest

A key issue with the growth in prominence of lifestyle medicine, as broadly defined, is its use as a 'Trojan horse' to carry in non or poorly evidenced practices under the auspices of 'evidence-based'. We have two main concerns here. Firstly, the opportunity taken by some alternative medicine practices to link to lifestyle medicine, and secondly, the association of some 'lifestyle medicine practitioners' with commercial opportunities.

For example, it doesn't take much of a search online to find multiple self-described, medically qualified practitioners advertising lifestyle medicine in the private sector, whose clinics offer discredited IgG tests for food intolerance, herbal remedies, mistletoe injections, intravenous vitamin infusions, bioidentical HRT (advised against by the British Menopause Society), and health screening not recommended by the UK National Screening Committee. Conflicts may include ownership or sales of supplement or vitamin companies, subscriptions to newsletters, books or online lifestyle coaching.

Others have written extensively about the 'Trojan horse' of 'integrative medicine' (also termed 'functional medicine')[7], which claims that by *integrating* complementary and alternative medicine (CAM) with conventional medicine, patients receive a complete, 'holistic' perspective. Integrative medicine often appeals to nature ("natural treatments"), antiquity ("ancient wisdom"), authority ("renowned universities run courses"), and popularity ("demand is high"). The broad umbrella of CAM means the inclusion of poorly evidenced interventions including supplements, acupuncture, homeopathy, Reiki, and reflexology. It also includes largely unproven physiological tests (e.g. thermography, bioenergetic health scans, Immunoglobulin G food panels) to identify "root-causes" of symptoms (framed as "systems biology"), each at a financial cost to the patient.

Under this ecosystem, uncritical adoption of lifestyle medicine may result in inclusion of non-evidence-based 'integrative medicine' practices, thus providing a Trojan horse within which pseudoscience can flourish. Disclosure of conflicts is not enough: indeed, this may be seen as giving 'moral license' where transparency is equated with trustworthiness, regardless of content.

Notwithstanding the wide scope for the meaning of the word 'holistic', and variation in individual practice, evidence from systematic reviews indicates that general practitioners have a strong understanding of whole person care, the therapeutic value of an enduring patient-GP relationship and an attentive, supportive and collaborative approach [9]. However, health care systems may not support, or may even be hostile to these values [10]. It is understandable that systems offering more time with a continuous practitioner are popular, but this may be offset by a variable offering of evidence-based practice.

'Lifestyle medicine' needs a clear consensus on what constitutes evidence-based practice, with organisational standards and leadership commitment to the removal of bad science, and financial and ideological conflicts. Movement towards this is welcome [11].

Lifestyle 'choices' and health inequalities

The concept of individual 'choices' and 'changes', and by proxy 'control', plays a central role in many working definitions of lifestyle medicine. We are concerned about the potential for widening health inequalities when conceptualised and delivered in this way.

Potentially modifiable unhealthy behaviours are not evenly distributed across populations. They often co-exist within individuals and communities, alongside multiple health and social problems (multi-morbidity) and are more concentrated in areas of socio-economic deprivation[12]. The clustering of fast food, tobacco and alcohol outlets in deprived areas highlights the influence of environmental context on health-related behaviours[13]. While the BSLM definition of lifestyle medicine acknowledges *"environmental and social determinants of disease",* the growth in private services are unlikely to yield benefits for people at highest risk of premature mortality from non-communicable diseases. Those in greatest need of support with health behaviour change are least likely to receive it.

The BSLM also states that *"Lifestyle Medicine has a wider responsibility to recognise upstream determinants of disease and to promote population health, to protect ecological health and to reduce health inequity."*[1] However, we have seen limited evidence of advocacy for action on "upstream determinants" among lifestyle medicine proponents. Rather, the focus is, and has historically been, on downstream individual-based interventions. There is emerging evidence such approaches increase health inequalities [14] and the continuation of this as the dominant approach in policy draws attention away from the need for wider environmental or structural (public health) interventions [15].

Ultimately, the biggest drivers of health, and associated risk factors, are the social determinants of health ("the conditions in which we are born, grow, live, work and age")[16], shaped by the distribution of money, power and resources at global, national and local levels. Efforts to change health-related behaviours among the most deprived members of society are unlikely to succeed unless they are supported by measures designed to improve the material circumstances and the drivers of those behaviours within communities.

Integrating personal health and public health

We suggest that individual-level interventions are most likely to succeed when integrated with public health interventions, which focus on populations, either within communities or with higher-level (regional/national) policies (Box 2). Public health aims to subvert the 'healthy attender paradox' and avoid the need for healthcare professional guidance or action.

Taking alcohol as an example, individual interventions may have a role, but only population interventions can reach everyone. A 2018 Cochrane review found moderate evidence that a brief alcohol intervention could reduce alcohol consumption by around a pint of beer or a third of a bottle of wine per week, albeit with little impact on binges per week or alcohol-free days [17]. The introduction of minimum unit pricing on alcohol in Scotland seems to have had a greater effect on the highest alcohol consumers [18]. Similarly, brief advice to stop smoking can increase quit rates by 1-3% [19], but reduced cigarette smoking across the population, and decreased youth take up, is most likely due to legal interventions to limit smoking and advertising [20].

It is critical to know whether success in trials can be replicated in real world practice. For example, a popular claim is that "brief physical activity advice interventions" in primary care have a number needed to treat of 12 for increasing self-reported physical activity [21]. This has led efforts to research and increase professional knowledge of physical activity guidelines. However, 'brief advice' in trials consisted of frequent face-to-face and telephone call support delivered by professionals from different disciplines, subsidised gym membership, postal support, and personalised reports [22]. A core problem with such trials is the dilution of any effect on patients who elected not to take part in the trial at the start. Weight loss interventions described as successful have uptake in less than a third of at-risk patients and require systematic support [23]. Even evidence-based interventions may not be effective in the real world, higher risk community.

Conclusion

Optimally, 'lifestyle medicine' is concerned with preventive or therapeutic targeting of potentially modifiable risk factors using evidence-based strategies to support favourable change in health behaviours. Yet usual, good medical practice should encompass all of this, embedded within considerate relationships between patients and professionals. The affiliation between lifestyle medicine and non-evidence based, fringe and alternative tests, diagnoses and interventions in many areas risks disrepute, conflict, and confusion for

patients. We recommend that evidence-based interventions should be part of routine training for clinical staff, with limitations explained, and critical thinking and reflection employed.

Effective care requires not simply calls to education, but resources where they are needed most, assessment of opportunity cost, and critical evaluation of interventions. Lifestyle medicine's continued emphasis on the individual as the change agent may result in the people at lowest risk having the greatest amount of intervention, while people carrying the greatest risk are not receiving the support they need. Understanding the environmental drivers of unhealthy behaviours requires primary care practitioners to work more closely with public health colleagues to develop local community approaches, particularly in disadvantaged areas. We support public health colleagues working with the government to research and implement evidence-based population interventions targeting the drivers of potentially modifiable risks, as these have the highest chance of benefiting populations already at greatest risk of premature mortality and morbidity.

Patient involvement
Not applicable

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Contributors and sources
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The authors alone are responsible for the views expressed in this article, which do not necessarily represent the views, decisions, or policies of the institutions with which the authors are affiliated.

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Box 1. Key drivers for Lifestyle Medicine

Prevention is better than cure
The patient is an active partner, not a passive recipient
Lifestyle medicine treats the root cause (behaviours) of chronic disease, which medicine often overlooks
Lifestyle risk factors are the primary cause of non communicable disease and must therefore be addressed
It is better to treat with lifestyle changes than to use potentially unnecessary drugs with the risk of side effects
Lifestyle medicine is cost-effective compared with conventional medicine
Professional satisfaction is greater, especially compared with usual approaches to chronic disease management (e.g. the ‘tick box’ approach of the Quality and Outcomes Framework in England)
Because of weakening of public health through defunding within local government, individual approaches are necessary
Public Health England has been perceived as not being sufficiently independent of government or industry.

Box 2. Individual and population approaches to health risk factors

Intervention for	Individual-level interventions	Public health interventions	
		Community-level	*National policy-level*
More modifiable risk factors			
Physical inactivity	Advice and support, exercise prescription, gym or home exercise resources	Parks, cycling infrastructure, bike hire schemes	Active travel policies, working hours
Poor diet	Advice and support, referral to weight management services	Community gardens, cooking classes.	Sugar tax, pack sizes, food labelling, restrictions on promotions and marketing of unhealthy foods
Excess alcohol intake	Screening, individual advice and support	Local alcohol licensing, recovery communities	Minimum Unit Price legislation, restrictions on advertising
Smoking	Advice from health professional at routine appointment	Open access to pharmacy quit services	Mass advertising for telephone advice, Bans on smoking in public places
Less modifiable risk factors			
Poverty	Community links worker, financial inclusion advice	Anti-poverty community groups, food pantries, credit unions.	Active labour market policies, welfare system reform to improve ease of applications, minimum income for healthy living
Environmental	Access to private outdoor spaces, referral to social prescribing schemes	Green spaces, parks	Regulation to limit air pollution