



The Impact of Lifestyle Medicine on Chronic Disease Prevention

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ABSTRACT

Chronic illnesses, such as cardiovascular disease, diabetes, and hypertension, are major contributors to mortality worldwide and are significantly affected by lifestyle concerns such as unhealthy eating habits, insufficient physical activity, and smoking. Lifestyle medicine is a scientifically supported method for dealing with various diseases by encouraging healthy habits that help prevent, control, and perhaps cure long-term illnesses. The present review examines the efficacy of lifestyle medicine treatments, the prevalent chronic illnesses associated with lifestyle choices, and the obstacles encountered in the widespread implementation of this strategy. Empirical data indicates that lifestyle medicine is not only economically efficient but also meaningful. However, obstacles such as insufficient knowledge and education must be overcome to guarantee its broad acceptance. The combination of lifestyle changes with pharmaceutical therapies has significant potential in mitigating the worldwide impact of chronic illnesses.

Keywords: Lifestyle medicine, Chronic disease prevention, non-communicable diseases (NCDs), Health interventions, Nutrition.

INTRODUCTION

Chronic diseases are the leading cause of death worldwide. Infectious diseases are of great concern, but chronic diseases account for a larger number of deaths. It is now widely accepted that lifestyle-related risk factors influence one's development of chronic disease. Common risk factors that lead to the development of chronic diseases are tobacco use (cigarette smoking), obesity, lack of physical activity, poor dietary habits (including one's hydration habits), and lack of sleep. Chronic diseases often coexist and are largely responsible for early morbidity and mortality in men, women, and even the unborn. According to WHO, eight out of the 10 leading causes of deaths in the world are chronic diseases. In the US, six out of the 10 leading causes of deaths are chronic diseases. In young Americans, i.e. under the age of fifty, chronic diseases account for 75% of deaths. Lifestyle medicine refers to the practice of assisting individuals and families in adopting and sustaining healthy lifestyle choices. Such changes have been shown to prevent, treat, and often reverse the course of chronic diseases that are prevalent in the developed world (e.g., heart disease, type 2 diabetes, hyperlipidemia, hypertension, obesity, and other stress-related and lifestyle-related disorders). Lifestyle medicine recognizes that lifestyle practices such as nutrition, physical activity, stress management, and other healthy life choices are essential components of health and the treatment of disease. It also emphasizes the recognition and removal of unhealthy life choices and/or habits that can adversely impact health. Such behavior changes are crucial to preventing and treating chronic disease and must occur contemporaneously with the prescription of medication. Improved outcomes can be attained when the medical models of pharmacotherapy and lifestyle modification (i.e. lifestyle medicine) are integrated together. Lifestyle medicine has matured as a scientifically recognized field of inquiry and practice. It shares a common body of knowledge and specialty training programs, with a growing cadre of board-certified specialists, postdoctoral education fellowships, and residents in training. Lifestyle medicine has the potential to be a key component in the goal of achieving a cure for the chronic disease pandemic.

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UNDERSTANDING LIFESTYLE MEDICINE

According to the American College of Lifestyle Medicine, lifestyle medicine is the use of lifestyle interventions and their application through comprehensive education and support as the treatment of choice for specific clinical conditions and for the amelioration of overall health and well-being. Lifestyle medicine may be utilized to prevent, arrest, and treat chronic disease and improve well-being through a variety of lifestyle approaches. These include a nutritious diet, physical activity, smoking cessation, moderated or eliminated alcohol intake, and appropriate sleep, stress management, and social interaction [1, 2]. Compared to other health interventions, especially pharmaceutical interventions, lifestyle medicine is effective, safe, cost-friendly, and can be applied widely. Therefore, it was preselected as the primary intervention in the main focus. Chronic non-communicable diseases (NCD) are diseases that cannot be transmitted from one person to another like infectious diseases, but they can cause severe health impairment. NCDs include cardiovascular diseases, cancers, chronic respiratory diseases, and diabetes mellitus. In countries where lifestyle medicine is already widely practiced, NCDs are preventable and controllable [3]. In recent decades, the prevalence rate of NCDs in developing countries has grown rapidly. Poorly controlled NCDs have devastating impacts on people's lives and might even bring concern to countries' social and economic developments. Hence, it is vital for developing countries to take action against NCDs. One priority to more effectively address these chronic diseases is to provide a better understanding of the current situation at the grassroots level, carry out awareness promotion, and mobilize actions from the bottom. In particular, lifestyle medicine should be adopted as the first step to addressing chronic non-communicable diseases [4].

COMMON CHRONIC DISEASES AND LIFESTYLE FACTORS

The term chronic disease usually refers to a disease that persists over time, and the five most common chronic diseases are acne, allergies, arthritis, asthma, and back pain. The first four of these common chronic diseases could all be based on lifestyle factors. Acne is a condition when the skin produces too much oil. There are a lot of factors involved in the production of oil, including a bad diet, air quality, lifestyle habits like smoking, and general hygiene. It is published that adopting a low glycemic index diet may improve acne. Allergies are a condition of the immune system, and a lot of lifestyle factors might influence it, like stress and not exposing children to enough germs [5]. Asthma is hard to understand how lifestyle might play a role, but for example, the incidence of asthma is much higher in urbanized areas where air quality varies than in places where the air is of better quality. Arthritis is a very broad term that describes painful conditions of the joints. For osteoarthritis, wear and tear of the joints caused by age, overweight, and injuries might be contributing to its development. Obesity might be unhealthy for a lot of reasons, a big one being that it increases the risk to develop non-alcoholic fatty liver disease, which in turn can lead to a lot more serious liver conditions. Another example of a chronic disease with links to lifestyle factors is back pain, which can be caused by cigarette smoking, high BMI, lack of exercise, and gender, with females being more likely to suffer from it [6]. Common lifestyle-related chronic diseases that don't involve the skin, and not including acne and allergies, would be obesity, hypertension, hypercholesterolemia, type 2 diabetes, cardiovascular diseases, osteoarthritis, and chronic low back pain. Chronic diseases, and not only obesity, can be prevented by lifestyle interventions [7].

EVIDENCE-BASED STRATEGIES IN LIFESTYLE MEDICINE

As the focus in addressing chronic diseases is shifted more towards population-wide, evidence-based preventative measures, further clinical research is warranted to examine the role, efficacy, and impact of lifestyle medicine intervention. National lifestyle medicine initiatives called "Health and Wellness" have been developed, based on previous successful community Health and Wellness initiatives conducted in Finnish municipalities. A lifestyle medicine trial has been organized in five study municipalities, aimed at reducing major chronic disease risk factors with long-term, free-of-charge lifestyle medicine intervention. Study municipalities will be compared with five matched control municipalities with no outside intervention. Outcomes include changes in chronic disease risk factors, lifestyle habits, health-related quality of life (HRQoL), and healthcare costs [8]. Clinical, randomized studies are designed to evaluate the efficacy and impact of the lifestyle medicine intervention, as part of ongoing national initiatives. In these studies, lifestyle changes in groups randomly assigned to either intervention or control groups will be compared. The impact of changes in lifestyle and risk factors on the incidence of new chronic diseases, illness days, medications, rehabilitation, and health-related HRQoL will be evaluated. In addition, the nationwide telehealth intervention with practitioners, called "Safer 5", will be studied for its reception, perspectives, and impact on lifestyle changes, as well as on properties suitable for nationwide implementation and scaling [9]. The HoMET (Health and Wellness-oriented Municipality and Expert Network) project aims to develop, implement, and conduct research on a community Health and Wellness

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initiative to address the growing burden of chronic diseases. Such an initiative is warranted as two previous pilot studies showed that municipality-wide healthy lifestyle intervention can be effective, and in some areas, healthcare costs savings can exceed the costs of intervention depending on the risk profile of the municipality and intervention. The HoMET intervention consists of municipality-wide, free-of-charge lifestyle medicine, health counseling, and other Health and Wellness services. It increases awareness among residents of the individual and societal consequences of non-healthy lifestyle habits and pleads everyone to take responsibility for health. Containment of lifestyle-related chronic diseases requires joint efforts and actions from individuals, families, working communities, schools, and municipal services [10]. In sum, lifestyle medicine seems both a needed, feasible, and warranted approach against chronic diseases. The approach is still novel and clinically unstudied at a deeper level, particularly outside the USA and in Europe. As individuals increasingly take responsibility for their health, societal structure and facilitating lifestyle medicine services should follow individuals' initiatives and support healthier lifestyle choices. Nowadays, joining forces of the government, communities, and the healthcare system is essential for public health [11].

IMPLEMENTATION AND CHALLENGES IN LIFESTYLE MEDICINE

With the growing recognition of the role of lifestyle behaviors in health, as well as the increased stress on prevention of lifestyle-related chronic disease, there is a heightening concern on how to best implement lifestyle medicine and effectively and conveniently disseminate its health optimizing practices. Lifestyle medicine, or the assessment and treatment of lifestyle behaviors under the premise that these behaviors are factors that can be modified and feasibly changed, is increasingly becoming a tool for and an area of emphasis in health maintenance, chronic disease prevention, and overall health literacy and well-being [12]. Lifestyle medicine intervention, such as that applied in workplace-based wellness programs, has shown to have statistically significant and clinically meaningful improvements in major cardiovascular risk factors. Lifestyle medicine strategies hold great potential for long-term and far-reaching population health improvements from the individual all the way to the health policy level. However, there currently exist barriers to the comprehensive and consistent use of lifestyle medicine intervention. With these barriers in mind, opportunities for implementing lifestyle medicine as an adjunct to usual care are discussed, recent approaches to addressing these barriers, and endeavors for feasible dissemination of health optimizing lifestyle practices and overall lifestyle medicine integration with health care delivery on both the provider and consumer side are reviewed [13]. Although lifestyle medicine and the congruent term health promotion have both been in the literature for about 30 years, and after 30 years of research demonstrating the effectiveness of lifestyle medicine intervention in a variety of applications, lifestyle medicine is not a term recognized or understood by most health care providers or those who seek health care services. Even in research publications or scientific venues where it might be expected to be commonplace, it is often not employed. Lifestyle medicine is often broadly and synonymously used with other terms such as health promotion and preventive medicine. Impediments to the practical application and effective and consistent dissemination of lifestyle medicine strategies are the same obstacles that previous, current, and ongoing population health efforts grapple with. These barriers include universal misconceptions about the role of personal lifestyle behavior on health, health care provider awareness, familiarity, and training in population health research, intervention design and implementation, lack of provider consideration of population health lifestyle behavior modification strategies in the clinical setting, and misunderstandings by consumers of the complexities and nuances behind health behaviors and disease state involvement [14].

CONCLUSION

Lifestyle medicine represents a powerful and underutilized tool in the prevention and management of chronic diseases. By focusing on sustainable behavior changes in areas such as nutrition, physical activity, and stress management, lifestyle medicine offers a cost-effective and holistic alternative to conventional pharmaceutical treatments. As chronic diseases continue to rise, especially in developing countries, the implementation of lifestyle interventions can play a crucial role in reversing the trend. However, successful integration into healthcare systems requires overcoming challenges related to awareness, training, and accessibility. Governments, healthcare providers, and communities must collaborate to embrace lifestyle medicine as a central component of chronic disease management.

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