

LIFESTYLE DRUGS

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Received: 13 Sep 2012, Revised and Accepted: 25 Oct 2012

ABSTRACT

Lifestyle has changed from being an indicator of the overall well being of an individual to a cause of disease and now, lifestyle has itself become an object of medical attention. Lifestyle drugs are drugs used for non-health problems or for conditions that lie at the boundary between a health need and a lifestyle wish. These drugs threaten the financial sustainability of current health systems. Traditional approaches to regulating medicines are not effective for lifestyle drugs; coordinated action is needed to manage pharmaceutical policy nationally and locally. To do this, local and national regulatory agencies, politicians, healthcare providers, insurers and patients need to formulate broad areas of consensus. Greater public involvement and scientific research is essential in establishing priorities. There is a need to study this concept deeply and the impact of these drugs on Indian health care system.

Keywords: Lifestyle drugs, Smart drugs, Pharmaceutical industries

INTRODUCTION

The term "Lifestyle Drugs" is used to describe medicines that are used to treat 'lifestyle illnesses', which are actually the diseases that arise through the so called 'lifestyle choices' such as smoking, alcoholism or overeating.¹ One of the online medical dictionaries tried defining 'Lifestyle drug' as a prescription agent that allows its user to perform an activity 'on demand' or without consequences, ameliorates an imprudent binge, or modifies effects of aging. Although, the medical literature boasts of having 23 different definitions of lifestyle drugs, most of the medical fraternity accepts that there is no official definition for lifestyle drugs.^{1,2} Generally speaking they are medications designed to improve a person's quality of life by treating less serious conditions, such as baldness, impotence, wrinkles, acne, weight loss, hair loss, insomnia and sexual dysfunction which are perceived as either not a medical problem at all or as minor medical conditions related to others.

Of late, the market for lifestyle drugs has become one of the most dynamic and commercially attractive sectors in the pharmaceutical industry.³ To give an idea, today the lifestyle drugs market is worth an astonishing \$29 billion from its starting value. This booming market has tempted the companies to invest huge amounts in research on such drugs, with the estimate being \$20 billion since the 1990s.⁴ Pharmaceutical companies might try to distance themselves from the controversial term "lifestyle drugs," but still the companies are actively promoting research on these drugs and are involved in "disease mongering" which has been defined by Moynihan et al. as "Disease mongering can include, turning ordinary ailments into medical problems, seeing mild symptoms as serious, treating personal problems as medical, seeing risks as diseases, and framing prevalence estimates to maximize potential markets".⁵ Proponents, however, remark that improving the patient's subjective quality of life has always been a primary concern of medicine, and contend that these drugs are doing just that.

The opponents believe that that lifestyle drugs amount to little more than medically sanctioned recreational drug use and it becomes risky as some people take them chronically.⁶ They question that although the wish for healthy, beautiful, intelligent and potent life can be understood but is it then the role of health care system to try to enhance these qualities? Lifestyle drugs are mostly claimed to be harmless, but then the physician must pay attention to possible abuse, side effects, risks and complications so as not to put people at risk.⁷ These controversies surrounding the lifestyle drug's basic needs, current status, ethical and regulatory aspects and consumer's point of view has encouraged us to assess these various aspects of life style drugs in detail.

WHY THE LIFESTYLE DRUG BOOM?

The reason behind the exponential growth of the market for the lifestyle drugs seems to be complex and involves interplay of various factors. These drugs cater to modern man's lifestyle needs like vigour, youth, beauty, intelligence, personality etc. The last few years have seen an exponential increase in the endorsements of these drugs by high profile people from Bollywood, Hollywood and sports arena. The availability of 24x7 telecasting tools of media makes these endorsements more convincing to the common man.

Government regulators have frequently raised alarms about the safety of these lifestyle drugs, but their use has often proven irresistible. People use these medications regularly despite of any justified indications, for example, millions of Americans routinely pop sleep medications, even though they are rarely troubled by insomnia, and the crutch is hard to give up. In developed countries, using lifestyle medications has become a fad which is fast catching up the developing countries also. For instance, within the first 3 months of launch of Orlistat in Canada, 78200 prescriptions for the drug had been written.⁸ One of the report states that in 1999 alone, pharmaceutical companies spent around US\$325 million advertising just 4 lifestyle drugs finasteride, sildenafil, orlistat and bupropion to US consumers.⁸ They are actively involved in sponsoring the definition of diseases and promoting them to both prescriber and consumers. The vested interests of pharmaceutical companies accompanied with their aggressive marketing, along with the rising affordability of the community as a whole due to a booming economy are the few other causes fueling the sales of the lifestyle drugs.²

LIFESTYLE DRUGS IN INDIAN CONTEXT

In developed countries, the health care costs are taken care of by the big insurance giants. As no such public health insurance scheme is in place in India, 80% of Indian population is spending money out of the pocket on health sector, which is expected to lead to poverty by more than 2%.⁹ With the growth of middle class in the country, the lifestyle is changing fast in the urban and to some extent in rural areas. In India, 14% and 4% of health care costs are taken care of by the government and insurance sectors. The increasing cost of lifestyle drugs has made these agencies think about who should pay for these lifestyle drugs.²² In the absence of objective pharmacoeconomic data, the subjective value or cost effectiveness of these agents varies among patients, medical professionals, regulatory agencies and payers. The aims of large institutional payers (insurance companies), and the individual patients and their physicians do not always coincide, creating tensions over who should pay for these drugs. Cost-sharing between patient and payer,

drug limitations and prior authorisation protocols are some methods used to manage access to these drugs.¹⁰

Another context where India defers with respect to rest of the world is most of the lifestyle drugs still require a prescription whereas in India, almost all of them are available over-the-counter. Under such circumstances, one should be all the more cautious whether these drugs will become the drug of abuse. There is no accurate data about the rate of usage of these lifestyle drugs in India. The drug licensers in India should not be influenced by the approvals of the other Western countries where no medicine is sold without prescription.

Table 1: Some Commonly Used Lifestyle drugs

Lifestyle Drugs	Lifestyle Indications
Viagra (Sildenafil citrate)	Impotency, Erectile dysfunction
Norethisterone	Short/ postpone menstruation
Anabolic steroids	Muscle building
Orlistat, Sibutramine	Weight Loss
Minoxidil, Finasteride	Baldness
Smart drugs	Cognitive Enhancers
Amphetamines	Alertness
Antioxidants, Botulinum toxin	Wrinkles and ageing / cosmetic alterations
Cyproheptadine	Appetite enhancer
Food supplements, vitamins	General wellbeing
Height increasing pills	Height

LIFESTYLE DRUGS IN OLD AGE

Normal aging has never been a disease. The so-called age related changes are mostly due to the individual lifestyle of the person. But recently, aging has been medicalized and a large number of healthy old aged persons are using 'lifestyle' drugs such as nootropics, psychopharmaca, hormones and ecodrugs.⁷ The old aged people have become all the more cautious about the age related changes in their body such as hair loss, wrinkles etc., and want to postpone it as long as possible. The modern age doctors have to face varied demands of old aged people with respect to improving their outer appearance, to solve their 'cosmetic problems', to influence their rate of hair growth and to altogether delay, halt or even reverse the natural aging process, and these doctors feel that instead of accepting the old age, the life style drugs are a solution to the stated problems. At times, the patients suffering from somatoform disorders such as hypochondriac disorders, body dysmorphic disorders, themselves spontaneously ask physicians to prescribe them lifestyle drugs. Prescribing these lifestyle drugs to the elderly population, should make the physician even more cautious cause of an increased chance of adverse drug reactions in the geriatric population and the same should be properly informed.^{7,11} Is lifespan prolongation a legitimate therapeutic aim? Opinions will differ as only the time will show whether this will be the ultimate triumph of medical science or the ultimate social disaster.

SMART DRUGS

Stress has become a part and parcel of our life and is also stated to be one of the main reasons for the development of various cognitive illnesses such as dementia.¹² Other than the genuine pharmaceutical agents for these true organic illnesses, the market is flooded with loads of "smart drugs". The term "smart drugs" is used for "any of a variety of substances, including certain vitamins, herbs, and prescription drugs, reputed to improve such mental functions as memory and alertness or to lessen or prevent damage to brain cells". The other name for these drugs is Nootropics which in Greek means acting on the brain. They are a class of synthetic and natural supplements that enhance cognitive function. Initially these drugs were genuinely being used for the treatment of memory disorders and dementia, but lately even the healthy are trying their hand over these smart drugs who report a tremendous benefit from these smart drugs as they improve their working capacity. Reported effects include increased alertness, energy, short and long term memory capacity, concentration levels, and work performance.¹³

Certain other drugs which can be categorized as smart drugs include:

- Ginkgo biloba
- DMAE (di-methyl amino ethanol)
- DHA (docosahexaenoic acid)
- Acetyl L carnitine
- Phosphatidylserine
- Ginseng

BIOETHICS AND MEDICAL POLICY DEBATE

As it is clear that there is no precise widely accepted definition or criteria for the term Lifestyle drugs,² likewise there is much debate within the fields of pharmacology and bioethics around the propriety of developing such drugs, particularly after the commercial debut of Viagra for a therapeutic condition and its subsequent misuse. Critics of pharmaceutical firms claim that pharmaceutical firms actively medicalize; that is, they invent novel disorders and diseases which were not recognized as such before so that their "cures" could be profitably marketed. This leads to pathologizing what were initially considered as normal conditions of human existence.⁵ The consequences are said to include generally greater worries about health among the general public, misallocation of limited medical research resources to comparatively minor conditions while many serious diseases remain uncured, and needless health care expenditure. Social critics also question the propriety of devoting huge research budgets towards creating these drugs when far more dangerous diseases like cancer and AIDS remain uncured¹⁴. India is still being troubled with the age old diseases such as tuberculosis, malaria, malnutrition and other socio-economic problems,¹⁵ and allocation of funds and priority to these lifestyle drugs in the presence of gross scarcity of funds, will do more harm than good to the nation.

CONCLUSION

In the near future an increasing number of lifestyle drugs are expected to reach the marketplace. The debate over how to categorize, use and pay for them is going to intensify. There is an urgent need to formulate coherent values, priorities and strategies for dealing with lifestyle drugs. If we as a society decide that lifestyle drugs should be covered through the health care system, it should not be at the cost of other treatments. The allocation of resources also needs prioritization. We need to find mechanisms whereby all elements of society — government, industry, health care professionals, patients and consumers — can participate in the decision making.

As a researcher, one has to admit that there is paucity of studies pertaining to the use and abuse of lifestyle drugs, and in the absence of these studies appropriate policies regarding the lifestyle drugs will be difficult to make and implement. Nonetheless, any data from such research will be a boon to the mankind i.e. both to the patients and normal individuals; especially to satisfy their medical requirements and psychology. And also on the contrary we, we must also not forget our duty towards compassion for the patient and should not deny them their right to live a healthy and happy life. What we require is a proper balance which meets both the needs.

REFERENCES

- Moldrup C. The use of the terms 'lifestyle medicines' or 'lifestyle drugs'. *Pharm World Sci* 2004;26:193-6.
- Rahman SZ, Gupta V, Anupama S, Khunte Y. Lifestyle Drugs: Concept and Impact on Society. *Indian J Pharm Sci* 2010;72:409-13.
- Rahman SZ, Gupta V, Dang A, Sukhlecha A. Lifestyle drugs in India: Are we ready for them? *Australasian Med J* 2010;1:186-9.
- Atkinson T. Lifestyle drug market booming. *Nature Med* 2002;8:909.
- Moynihan R, Health I, Henry D. Selling sickness: the pharmaceutical industry and disease mongering. *BMJ* 2002; 324:886-91.
- David G, Tom W, Bill N. Lifestyle Medicines. *BMJ* 2000; 321:1341-4.

7. Harth W, Seikowski K, Hermes B. Lifestyle drugs in old age--a mini-review. *Gerontology* 2009;55:13-20.
8. Lexchin J. Lifestyle drugs: issues for debate. *CMAJ* 2001;164:1449-51.
9. Doorslaer EV, O'Donnell O, Rannan-Eliya R, Somanathan AS. Effect of payments for health care on poverty estimates in 11 countries in Asia: An analysis of household survey data. *Lancet* 1999; 368:1357-64.
10. Mitrany D. Lifestyle drugs: determining their value and who should pay. *Pharmacoeconomics* 2001;19:441-8.
11. Jayram N, Shiju KS, Prabhakar K. Adverse drug reactions in adults leading to emergency department visits. *Int J Pharm Pharm Sci* 2012;4:642-6.
12. Saini D, Dhingra AK, Chopra B, Parle M. Evaluation of nootropic activity of *Trigonella foenum* leaves in mice. *Int J Pharm Pharm Sci* 2012;4:136-43.
13. Lanni C, Lenzken SC, Pascale A, Del Vecchio I, Racchi M, Pistoia F, et al. Cognition enhancers between treating and doping the mind. *Pharmacol Res.* 2008;57:196-213.
14. Verna Carson RN, Karen L. Soeken, Joyce Shanty RN, Lillian Terry RN. Hope and spiritual well-being: essentials for living with AIDS. *Perspect Psychiatr Care* 1990;26:28-34.
15. Gawande A. Dispatch from India. *N Engl J Med* 2003;349:2383-6.