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, health care 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.2,3 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.4 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 market has tempted the companies to invest huge amounts in research and development. From a lifestyle point of view has encouraged us to assess these various aspects of lifestyle drugs in detail.

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.4 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.8 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.

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 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?10 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.\textsuperscript{10}

Another context where India differs with respect to the rest of the world is most of the lifestyle drugs still require a prescription whereas in Western countries no medicine is sold without prescription. The drug licensers in India should not be influenced by the approvals of the other Western countries where no medicine is sold without prescription.

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>
<thead>
<tr>
<th>Lifestyle Drugs</th>
<th>Lifestyle Indications</th>
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<tbody>
<tr>
<td>Viagra (Sildenafil citrate)</td>
<td>Impotency, Erectile dysfunction</td>
</tr>
<tr>
<td>Norethisterone</td>
<td>Short/ postpone menstruation</td>
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<tr>
<td>Anabolic steroids</td>
<td>Muscle building</td>
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<tr>
<td>Orlistat, Sibutramine</td>
<td>Weight Loss</td>
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<tr>
<td>Minoxidil, Finasteride</td>
<td>Baldness</td>
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<tr>
<td>Smart drugs</td>
<td>Cognitive Enhancers</td>
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<tr>
<td>Amphetamines</td>
<td>Alertness</td>
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<tr>
<td>Antioxidants, Botulinum</td>
<td>Wrinkles and ageing / cosmetic tissue alter</td>
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<tr>
<td>Cyproheptadine</td>
<td>Appetite enhancer</td>
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<tr>
<td>Food supplements, vitamins</td>
<td>General wellbeing</td>
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<tr>
<td>Height increasing pills</td>
<td>Height</td>
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**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, psychopharmacara, hormones and ecodrugs.\textsuperscript{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 'esthetic 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 somatoforasm 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.\textsuperscript{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.\textsuperscript{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".\textsuperscript{13} 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.\textsuperscript{13}

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

- a. Ginkgo biloba
- b. DMAE (di-methyl amino ethanol)
- c. DHA (docosahexaenoic acid)
- d. Acetyl L carnitine
- e. Phosphatidylserine
- f. 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,\textsuperscript{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.\textsuperscript{3} 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 uncured.\textsuperscript{4} India is still being troubled with the age old diseases such as tuberculosis, malaria, malnutrition and other socio-economic problems.\textsuperscript{5} 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, 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**