

Business of sleep medicine

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Introduction

The study of sleep disorders has been a specialty which has boomed of late in many countries including India. The recognition of Sleep Medicine as a subspecialty by the American Board of Medical Specialities¹ is a recent phenomenon although several sleep labs and programs for sleep medicine training have existed in the United States (US) for approximately two decades. Increasingly diagnosis & treatment of sleep disorders are being covered by third party insurers including the government sponsored Medicare & Medicaid programs in the US. The fact that Insurance coverage in India is predominantly limited to inpatient services has impeded any coverage for sleep disorders. However, this 'growing industry' has been attracting investors & investments as the business prospects are lucrative. Interestingly, doctors have been rather shy of managing business, as a result non-doctors and the equipment industry have come to the forefront. This article aims to address the growth of the business of sleep medicine in India by illustrating an experience of a free standing comprehensive sleep center, Nithra Institute of Sleep Sciences, located in a metropolitan city (Chennai, which is located in the south eastern coast of India).

Let's come to terms with reality!

As healthcare professionals, we adhere to Hippocrates principles, and are often naïve to the changing

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expectations, opinions & demands of our patients, who are increasingly preferring to be treated as 'clients' or 'customers'. Our focus and interactions need to be modified as patient care is now increasingly viewed as 'healthcare business' rather appropriately (Table 1). While most doctors still have a paternalistic approach and are confident that they would never intentionally harm those who seek treatment, our patients are increasingly demanding that we prove no harm and document quality care in black & white. The field of medicine has the distinction of not being a pure science and the 'art of healing' is, perhaps, just as important as the science. While care & compassion is a natural component of our packaged service, patients are now turning to be 'consumers' with rights who believe that doctors like other providers have duties & responsibilities and the label of 'noble profession' is gradually fading.

Healthcare boom in India

Healthcare Industry in India is Rs. 200,000 Crore in size and slated to increase to Rs. 300,000 crore by 2012. This industry currently employs over four million people and continues to grow at an astonishing rate of 16% per year. Interestingly, 80% of healthcare in India is managed

Table 1 : Coming to 'terms' with reality

'Our' Terminology as healthcare professionals	Reality
• Patient Care	• Healthcare Business
• Always the 'best' for the patient	• Quality Management
• Doctors 'do no harm' (Hippocrates Principle)	• Prove 'no harm'
• Paternalistic approach	• 'Consumer rights' attitude
• Doctors are service providers with compassion	• Viewed as providers with 'duties & responsibilities'
• Doctors should not do 'business'	• Non-doctors will do business using doctors

by the private sector, which is the highest in the world. Sixty percent of the 15,393 hospitals and 80% of all qualified doctors are in the private sector². It is disturbing to note that approximately 63% of hospital Chief Executive Officers (CEOs) are concerned that getting trained manpower would be the greatest challenge of the future. A significant number of them have voiced that a lack of consistent accreditation process hinders growth. Solutions using technology have already evolved in the field of radiology where telemedicine is widely used to overcome the manpower shortage. Newer prospects using technology based patient care is likely to evolve in many other specialities including the field of Sleep Medicine, which is rather new & evolving with very few specialists who are formally trained & qualified. This niche is likely to trigger business prospects for existing sleep specialists and also encourage many others to enter the field. The unfortunate reality may be that, only some may choose to pursue a formal career pathway while many others may start practicing with minimal experience & training.

Sleep Medicine Training & Certification

Sleep Medicine encompasses multidisciplinary knowledge regarding the anatomy, physiology, biochemistry, pharmacology & pathophysiology of sleep, wakefulness & related disorders. This field has brought together several specialities including Internal Medicine, Pulmonary (Chest) Medicine, Neurology, Psychiatry, Psychology & Otorhinolaryngology (ENT) to coexist and also acquire skills from each other to effectively manage the plethora of sleep problems. It is logical to note that the current certification in Sleep Medicine is jointly developed by American Board of Internal Medicine (www.abim.org), American Board of Family Medicine (www.theabfm.org), American Board of Pediatrics (www.abp.org), American Board of Psychiatry & Neurology (www.abpn.com) & the American Board of Otolaryngology (www.aboto.org) and recognized by the American Board of Medical Speciality (www.abms.org).

While structured short and long term training programs are available in countries like Australia & Europe, a formal certification in Sleep Medicine has not evolved. Indian Sleep Disorders Association (www.isda.co.in) founded in 1995 still has a modest membership of about 200 members with interest in this field and a small subset of the members are formally qualified. ISDA has now taken a lead to formalize training in Sleep Medicine with a

one year Diploma in Sleep Medicine. This could be the first step to subsequently start superspeciality training programs through National Board of Examinations & other Universities.

A Business Model

Sleep Medicine is ideal for a business model as it offers a distinct product line with potential for substantial financial profitability. Currently, being a niche market it is a hybrid discipline involving multidisciplinary outpatient consultations, diagnostic services, home health & durable medical equipment (DME) sales & service. The sleep care market in USA is estimated to be over \$100 million for diagnostic devices & \$200 billion for treatment & related services. The rapid growth of Sleep Medicine in India makes it one of the top five markets targeted by manufactures of sleep diagnostic & treatment equipment.

For years, researchers promoted the importance of sleep studies to little avail. However, as studies continue to highlight the harmful effects of sleep problems on general health & quality of life, there is increasing interest from corporates and general public on promoting awareness. This brings a unique business of corporate & wellness consulting to Sleep Medicine specialists.

For those of us who are yet to be convinced, the 'World Sleep Disorders Market Analysis of 2009-2024' estimates that 30% of the world population suffers from sleep problems. Drug revenues in the sleep market exceeded \$7 billion in 2008 and there is still a large untapped market that the industry can foresee. A comparative table of cost of sleep diagnosis & treatment for Obstructive Sleep Apnea (OSA) with nocturnal Continuous Positive Airway Pressure (CPAP) is illustrated in Table 2.

Why treat sleep problems?

Ronald et al. demonstrated that by the time patients are diagnosed with obstructive sleep apnea, they have already

Table 2 : Comparative Costs of Diagnosis & Treatment of OSA

Country	Cost of Sleep Study	Cost of CPAP	GDP (As per IMF-2009 data)
USA	\$ 1800 to \$8000	\$500 to \$1000	\$46443
Australia	\$800 to \$1100	\$1100 to \$1600	\$37302
India	\$120 to \$200	\$800 to \$ 1500	\$2932

used significant healthcare resources for several years³. For the ten years prior to diagnosis, those with OSA had claims of \$3,872 per patient compared to \$1,969 by those who did not have OSA. Adherence to treatment of OSA has demonstrated significant reduction in claims & hospitalization in USA & Canada^{4,5}.

Developing a Business Plan

As doctors, we are comfortable in obtaining a detailed history and after physical examination developing a list of differential diagnoses and a treatment plan. Our ability to develop a business plan may not match our comfort in developing a treatment plan! A formal effort at drafting a vision, mission & strategy are key factors in developing a business plan. A model is demonstrated in Table 3.

Implementing a Business Plan – A single center experience

Nithra Institute of Sleep Sciences was established in 2004 as the first free-standing comprehensive sleep center exclusively dedicated for sleep problems. A business plan was developed with the mission to promote awareness of sleep problems amongst healthcare professionals and the general public and a vision to be the preferred provider for sleep medicine services by offering comprehensive specialist based care with superior customer service. Single speciality focus has added value in the eyes of the public and healthcare professionals.

Over the past six years the volume of patients and revenue has multiplied several folds, with increasing number of patients undergoing diagnostic sleep studies and pursuing

Table 3: Evolving a Business Plan for establishing Sleep Medicine Services

<p>Mission</p> <ul style="list-style-type: none"> – To identify and manage sleep problems early and prevent related morbidity & mortality <p>Vision</p> <ul style="list-style-type: none"> – To define where ‘we’ want to be in the future <p>Strategic Plan</p> <ul style="list-style-type: none"> – Formal consideration of the ‘organization’s future course’ – What do we do, for whom & how do we excel ?

treatment with CPAP (Fig 1-3). Strategic marketing and establishing a sleep diagnostic facility within a speciality diabetic center have played key role in growth to achieve our goals.

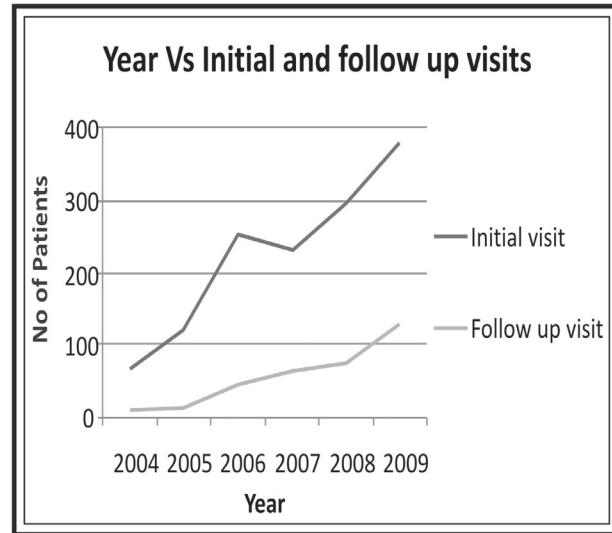


Figure 1: Patient volume over years

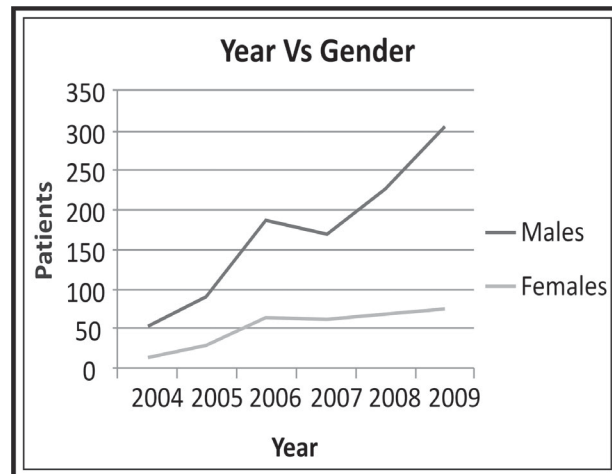


Figure 2 : Gender based patient volume

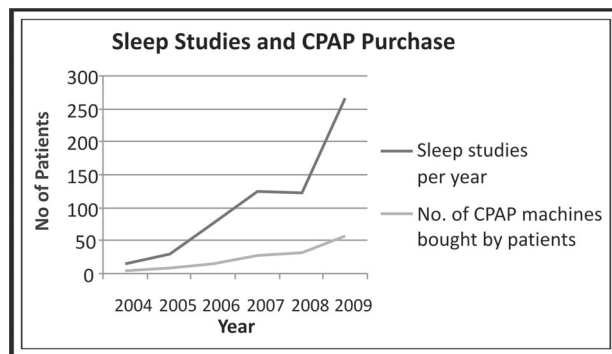


Figure 3: Sleep Studies & CPAP purchase

Other key aspects that have contributed to growth include expansion to provide value added services to our customers including nutrition counseling, oral appliances & pharmacy. Although we were initially referring our patients to distributors for purchase of CPAP equipment, we realized that this was restrictive and had a negative impact on customer satisfaction. We, therefore, offered choice of brands directly to customers and established a 'one stop' comprehensive treatment solution which has augmented patient satisfaction.

Are we there yet?

As with most new ventures, we must understand that 'what got us here won't take us further' unless we make a conscious effort to work towards our goals. Branding the subspeciality of Sleep Medicine and increasing awareness on the need for early diagnosis & treatment could make a significant impact on health of individuals and more importantly on the overall healthcare scenario in our country as sleep disorders are clearly linked to

cardiovascular complications & psycho social problems which in turn impacts productivity & our economy.

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