

Complementary and Alternative Medicine

Where do we stand in the 21st century?

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الطب البديل والتكميلي
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IN THIS ISSUE OF SQU MJ, DR. DEEPALI JAJU and her colleagues have shown the effects of a yoga technique known as Pranayam breathing (PB) on the pulmonary system.¹ These authors have demonstrated that PB has different effects on healthy controls compared to those with chronic obstructive pulmonary disease (COPD). PB invoked clear improvement in maximum inspiratory pressure (MIP) in normal controls; however, PB was not able to produce MIP changes in subjects with COPD. There was however, a significant increase in the visual analogue score (VAS) in COPD patients, which suggested reduction in respiratory distress. While the improvements were limited, and perhaps variable in different people, it does indicate that there is indeed some validity in yogic intervention. In modern parlance, health care systems outside the realm of modern biomedical sciences, also termed 'allopathic medicine', are often labelled 'traditional medicine'. The increasing acceptance of 'non-allopathic' health care systems, has led to some of them have being accepted as 'complementary and alternative medicine' (CAM). The term 'integrative medicine' has also emerged to describe the concurrent use of different healing systems to increase vitality, cure disease, or as integral part of a regimen for a healthy lifestyle or prevention of diseases.

In the SQU MJ February 2011 issue, Dr. Rahma Al-Kindi and her colleagues studied the use of alternative medicine among adult diabetics.² The study population was 146 patients, attending diabetic clinics at four primary health centres in the

Muscat area of Oman. This study demonstrated that 52% of the subjects had used alternative medicine at some time in the past. Most importantly, 42% of the cohort had used herbs and food supplements specifically to manage their diabetes. As half of the patients were satisfied with such interventions, the study sends a clear message: alternative medicine is widely used in the Muscat area for conditions such as diabetes. Such findings imply that physicians should be better prepared to discuss the use of CAM with patients, with all the implications this may have including the consideration of potential side effects and drug interactions.

It is no surprise that SQU MJ has attracted manuscripts on CAM in its recent issues since this is consonant with international trends. There is evidence in the literature to suggest that there is widespread increased use of CAM even in developed countries like the United States.^{3,4,5,6} In addition to the widespread general increase in use, CAM is also being increasingly used to treat some specific diseases of major concern to society, such as arthritis and cancer in developed countries, and malaria in Africa.^{7,8,9} In developing countries, where modern health care systems have remained rudimentary, traditional medicine continues to meet a significant proportion of health care needs.

Many healing systems owe their origin to ancient civilizations. In the Middle East, numerous records show the existence of pre-Islamic healing systems. This healing system bloomed in ancient Mesopotamia, which encompassed the area around the Tigris and Euphrates rivers, corresponding to

present-day Iraq, Syria, Turkey, and part of Iran. This cradle of civilization competes with historic Egypt in the development and application of such healing systems.¹⁰ During the heyday of the Islamic civilization, various healing systems came into prominence and some of them were employed in early experimental studies, the precursors of modern clinical trials.

Historically, India is one of the countries that has given humanity a unique healing system known as Ayurvedic medicine which originated at least 4,000 years ago. The term Ayurveda is a combination of Ayu (life) and Veda (science). Ayurvedic medicine is based on a humoral interpretation of disease and health with the idea of balancing the three humours “Vata”, “Pitta” and “Kapha”.¹¹ Ill health results when these three are out of balance. Just like India, China developed its own unique health care system that eventually spread to Japan, Korea and some other parts of the Far East. The cardinal idea of the Chinese health system was symmetry or balance, as in Ayurvedic medicine, and echoed the philosophy of ‘Galen’s medicine’ in ancient Greece. In Chinese medicine, illness is due to an imbalance in the flow of energy through established channels or meridians. A normal flow is essential for good health and self-healing; bamboo sticks, fish bones and now needles are used to stimulate points along the energy meridians and referred to as acupuncture. Healing systems in Europe were strongly influenced by Galen and Arab/Islamic medicine until the end of medieval period. With the emergence of science and experimentation during the European Renaissance, scientific medicine started to take root. This, in turn, led to the current domination of the modern allopathic biomedical health care system in Europe and North America. Nonetheless, even in these regions, there is still wide popular use of various CAM healing practices such as hydrotherapy, naturopathy, and herbalism, as well as chiropractic therapy, breathing, meditation and the use of mega-vitamins. The National Center for Complementary and Alternative Medicine (NCCAM) of the National Institute of Health (NIH) in the USA has instituted scientific studies to explore the efficacy of both the remaining traditional medicine systems and newly emerged healing systems.¹²

With respect to Oman, the health system is a hybrid of allopathic medicine and traditional healing practices, the latter being deeply rooted

in society. It is thus not surprising that Dr. Rahma Al-Kindi found a high use of herbal treatments for the self-management of diabetes.² Oman also has other types of CAM including the well known ‘physical treatments’ such as “Al Wasam” (الوسم) cauterization and “Al Hujama” (الحجامة) vacuum cup suction of the body surface.¹³ Traditional Omani ‘orthopaedic’ interventions include the use of “Al Jabirah” (الجبيرة), a homemade equivalent of plaster of Paris used by a traditionally trained person (a “Mugabbir” – مجبّر) for fractures and sprains. There are also various ‘spiritual’ interventions often employed for combatting what would in Western medicine be deemed to be psychological disorders; these include “Al Bassar” (الباصر), and “Zar” (زار), both exorcism practices.¹⁴ In addition, like other countries round the world, Oman also uses a variety of herbs (“Marameihah” – المرمرية) for different medical conditions. There is also a specific type of deep massage which is used for the treatment of infertility in Oman (“Al Maasah” – المسح). Other CAM physical treatments used in Oman include using a twin to treat migraine by massaging the affected side of the person’s forehead with his/her foot.

Despite the wide current use of non-allopathic treatment, there are still highly polarized views on the topic among modern practitioners of biomedical health care system. Many doctors who practice conventional allopathic medicine do not ‘believe’ in the efficacy of CAM at all—“it neither works nor does it have any basis on which it can possibly work”. Then, there are those doctors who practise both allopathic medicine and CAM, but unfortunately, some of these are doing it only for profit.

There is however, a glimmer of hope as evidenced in the American NCCAM Center, where millions of dollars are spent on studying various forms of CAM including naturopathy, chiropractic, herbalism, traditional Chinese medicine, Ayurveda, meditation, yoga, biofeedback, hypnosis, homeopathy, acupuncture and nutrition-based therapies among other therapies.¹² NCCAM aspires to establish the evidence-based efficacy of CAM. More recently, some clinical research has been employed to shed light on the efficacy of CAM, employing vigorous research methodology such as controlled clinical trials.⁴ To understand CAM better, NCCAM has classified CAM into 5

major groups:¹² 1) Whole medical systems such as Ayurvedic medicine, Chinese medicine and homeopathy; 2) Mind-body medicine which include yoga and meditation; 3) Biological-based substances such as herbs, foods and vitamins; 4) Manipulative and body based practices such as chiropractic and osteopathy manipulations; 5) Energy medicine including biofield therapists and bioelectromagnetic-based therapies. The Cochrane Center has also reviewed some scientific studies on CAM and published them on website of the Danish Knowledge and Research Center for Alternate Medicine (ViFABS).¹⁵

Those of us who practise conventional allopathic medicine need to have a better understanding of CAM, how it works, and what the potential benefits and side effects are. We need to be more willing to discuss the use of CAM with our patients. There is indeed potentially great danger in combining the two without proper knowledge of both. This is of particular concern when a serious illness threatens the confidence of patients in modern allopathic medicine and they resort to CAM as adjunctive therapy, and, at times, as the sole treatment. It is not clear why people use CAM, but their reasons are related to social and cultural issues, as well as the nature and severity of their disease. Somehow, CAM has a major persuasive appeal to patients.^{16,17} In developed countries, wide usage of CAM among patients with chronic and debilitating disease may be due to a culturally-based wish to “leave no stone unturned” and a patient’s ‘loss of hope’ of regaining their pre-morbid self as in the case of people with aggressive types of cancers or other progressive debilitating diseases that are impervious to conventional medical treatment. There is no evidence to suggest that oncologists are fully aware of the trend for cancer patients to use CAM concomitantly with their chemotherapy. This, needless to say, is potentially dangerous as major toxicities may arise. Ernst *et al.* reviewed several publications and out of the 21 studies on adult cancers, 50% reported that 27% of respondents used CAM while the average percentage of adults using CAM was 31.4%.⁸

Why patients use alternative medicine and which patients do this has yet to be empirically charted. John Astin, from Stanford Center for Disease Prevention, has studied the socio-demographic characteristics of people who use CAM and found

that those who used CAM were likely to be well educated, but have poor health status.¹⁸ It was found in this study that people utilised CAM not because they were dissatisfied with conventional medicine, but because they found it “more congruent with their valued beliefs and philosophical orientations towards health and life”.¹⁴ It is not known how widely CAM is used in different communities or clinical conditions. Most of the available studies are marred by poor design and methodological limitations. Harris and Rees have reviewed 12 studies and could not come to a clear conclusion.³

However, there is hope for humanity as a whole because it is gradually getting clearer that there is a lot of potential benefit from CAM, even though currently there is some misuse or improper use. As more and more clinical and basic scientific studies are carried out, it becomes clearer that the boundaries between CAM and conventional Western medicine are becoming blurred. On the whole, what is considered complementary and alternative practice in one country maybe considered conventional practice in another, e.g. some herbs in standard use in Europe are considered CAM therapy in the United States.¹² An increasing number of robust studies are appearing in the literature showing the potential benefits of using CAM alone or as part of integrative medical therapy. One of these is a recent Norwegian study from the Norwegian University of Life Sciences (UMB). It is a scientific study of the plants extracts derived from the bark of Cinchona tree and the Sweet Wormwood plant (*Artemisia Annu*) that have been used since dawn of history in African traditional medicine against malaria. Interestingly, contrary to the case with some of the conventional drugs available to treat malaria today, the malaria parasite has not yet developed resistance to the formula employed in African traditional medicine.⁹ Another recent clinical research study has studied the effects of omega-3 fatty acid and fish intake on development of age-related macular degeneration (AMD) amongst the 38,022 women who were followed up by questionnaire.¹⁹ The results showed a significant decrease of the incidence of AMD over 10 years follow-up. It is postulated that the fatty acid in fish and omega-3 fatty acid helped improved choroidal blood flow in the eye. AMD and cardiovascular disease have been hypothesised to share similar mechanisms and risk factors. Intake

of fish and omega-3 fatty acid has been linked to reduced cardiovascular events possibly related to the anti-inflammatory and anti-atherosclerotic effects of these products.

Where do we go from here? We, as modern allopathic medicine practitioners, need to take a long and good look at our attitude towards CAM. We need to be well-versed in this subject so that we are able to discuss it intelligently with the 'e-patients' of the 21st century. We need to understand the role of CAM when used alone or in conjunction with other treatment protocols that are an integral part of biomedical care. We need more scientific research devoted to understanding how and which CAM treatment has benefit to those who use it. The future of health care would be best served if an enlightened and amicable merger of the two branches of medical treatments were contemplated. More studies are therefore imperative. This means physicians need to open their eyes and apply their minds to this endeavour.

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