

# **Role Of Complementary Medicine in Child Psychiatry**

A review article  
Submitted for the Partial Fulfillment of  
A Master Degree in Neuropsychiatry

**By**  
**Sameh Mohamed Yousri Bondok**  
M.B.B.Ch.

**Supervised By**

**Prof Dr. Safeya Mahmoud Effat**  
Professor of psychiatry  
Department of Neuropsychiatry  
Faculty of Medicine, Ain Shams University

**Prof Dr. Afaf Mohamed Abd Elsamei**  
Professor of psychiatry  
Department of Neuropsychiatry  
Faculty of Medicine, Ain Shams University

**Dr. Hanan Mohamed Ezz Eldien Azzam**  
Assistant Professor of psychiatry  
Department of Neuropsychiatry  
Faculty of Medicine, Ain Shams University

Faculty of Medicine  
Ain shams university

٢٠١١

# دور الطب التكميلي في طب نفسي الأطفال

رسالة مقدمه من

الطبيب / سامح محمد يسري بندق

توطئه للحصول على درجة الماجستير  
في الأمراض النفسية والعصبية

تحت إشراف

**الأستاذة الدكتورة / صفية محمود عفت**

أستاذ الأمراض النفسية  
كلية الطب – جامعة عين شمس

**الأستاذة الدكتورة / عفاف محمد عبد السميع**

أستاذ الأمراض النفسية  
كلية الطب – جامعة عين شمس

**الدكتورة / حنان محمد عز الدين عزام**

أستاذ مساعد الأمراض النفسية  
كلية الطب – جامعة عين شمس  
٢٠١١

## **Introduction**

Science and technology have benefited patients through the development of more effective medications and other interventions. Patients once faced with limited survival can often look forward to a better prognosis and quality of life. Thus, the increased interest in complementary and alternative medicine (CAM) seems to run counter to the recent advances in modern medicine (**Catherine et al, ٢٠٠٥**).

Psychiatric illnesses account for over ٥٠% of DALY (Disability Adjusted Life Years). According to WHO survey, American adolescents have the highest rates of depression, substance abuse, psychosomatic symptoms like headache, abdominal pain (**Currie et al, ٢٠٠٤**).

Science is a great leveler. One can evaluate any treatment, no matter how unusual, nonpharmacological, or implausible, using the empirical methods of science, including randomized clinical trials, advanced brain imaging technologies, and other physiological measures of claimed mechanisms of action and treatment outcomes. It is not the nature of a specific treatment, as much as the quality of evidence supporting its use that determines its place in the therapeutic repertoire. Treatments that were once considered odd like herbal interventions are now

mainstream therapies. For example, foxglove, which was used centuries ago for dropsy, is the plant source of digitalis, a treatment for congestive heart failure that is highly effective because of the drug's positive inotropic effect, which enhances the contractility of cardiac muscle. Also the bark of the Pacific yew tree paclitaxel (Taxol), is now a cytotoxic chemotherapeutic Agent widely used to treat breast cancer. Treatments are alternative until they are found to be effective for a specific medical problem and subsequently accepted into Western medicine (**Lang et al, ٢٠٠٠**).

Patients frequently combine these non pharmacological treatments with biomedical care; however, they often do not disclose their use of complementary treatments to their physicians (**Eisenberg et al, ١٩٩٨**).

Children bear a significant burden of psychiatric illness. There is mounting evidence that many if not most, lifetime psychiatric disorders will first appear in childhood or adolescence.

Estimation of prevalence and incidence vary from site to site and study to study but the median prevalence of functionally impairing child and adolescent due to psychiatric disorders is ١٢% (**Costello and Egger, ٢٠٠٥**).

More than ٥٠% of American families who receive care for attention deficit hyperactive disorder (ADHD) in specialty clinics

also use complementary or alternative medical (CAM) therapies such as modifying their diet or other aspects of their lifestyle. However, only about 12% of families report their use of CAM to their clinician (**Chan et al, 2003**).

This gap in physician knowledge about patients' use of other treatments can lead to a disintegration of care, creating distrust between the patient and physician, preventing the physician from assessing potentially harmful interactions, and interfering with the patient's adherence to prescribed treatments. So understanding more about the implications behind CAM uses is necessary to determine why patients' needs are not satisfied through pharmacological medicine. For psychiatrists who work with medically ill patients, gaining further knowledge about this trend can be particularly useful. The information obtained can be employed to help patients coping more effectively with their illness and to assist patients in maintaining a constructive relationship with their health care providers (**Catherine et al, 2005**).

The use of complementary and alternative medicines (CAM) overall is increasing (Roy-Byrne, et al., 2005) and studies from Canada, the USA, UK, Australia and New Zealand show that rates of use by young people range from 10 to 44% (**Jean and Cry, 2004**).

There have been few recent prevalence studies about CAM usage by children and adolescents with psychiatric Disorders (**Wong and Smith, ۲۰۰۶**).

Many types of complementary and alternative treatments are used by children and adolescents with psychiatric disorders. In this review, we focus on those with potential metabolic or pharmacological actions, which may be efficacious according to recent research.

❖ **Definition of Complementary and Alternative Medicine:**

There are many terms used to describe approaches to health care that are outside the realm of conventional medicine.

Complementary and alternative medicine (CAM) are **defined as**, a group of diverse medical and health care systems, practices, and products that are not presently considered to be part of known biomedical medicine (**Barnes et al., ۲۰۰۴**).

The term complementary and alternative medicine refers to the various disease-treating or disease-preventing practices whose methods and efficacy differs from biomedical treatment. The term practice is preferred to therapy by some authors, because many of the clinical benefits and safety profiles of these approaches have not been proved effective. In complementary

medicine, some approaches can be and are used in conjunction with biomedical medicine (**Sadock, ٢٠٠٧**).

While scientific evidence exists regarding some CAM therapies, for most there are key questions that are yet to be answered through well-designed scientific studies—questions such as whether these therapies are safe? And whether they work for the purposes for which they are used or not? (**Barnes et al, ٢٠٠٤**).

The claims made by alternative medicine practitioners are generally not accepted by the medical community because evidence-based assessment of safety and efficacy is either not available or has not been performed for many of these practices. If scientific investigation establishes the safety and effectiveness of an alternative medical practice, it may be adopted by the medical community practitioners (**Crone et al, ٢٠٠٥**).

### ❖ *Categories of CAM:*

Much of the difficulty involved with defining CAM has to do with the large number of practices encompassed within this term. Efforts to clarify which practices fall under the title of CAM were started to help people to understand the many complementary and alternative treatments by classifying them into five broad categories: (**Barnes et al, ٢٠٠٤**).

**١- Biologically- based therapies:** which use substances found in nature, such as (dietary interventions, and herbal products).

**٢- Mind-body interventions:** these use a variety of techniques designed to enhance the mind's capacity to affect bodily functions and symptoms, such as (biofeedback, meditation, and yoga).

**٣- Alternative medical system:** based upon complete systems of theory and practice, such as (acupuncture, homeopathy, and traditional Chinese medicine).

**٤- Manipulative and body-based methods:** which are based on manipulation and/or movement of one or more parts of the body, such as (acupressure, massage therapy, and osteopathy).

**٥- Energy therapies:** involving the use of energy fields.  
There are two types of energy fields:



**A- Putative** (also called Biofields), which purportedly surround and penetrate the human body but cannot be measured.

**B- Veritable**, which involve measurable wavelengths and frequencies of sound, light, magnetism, or other types of rays from the electromagnetic spectrum.

# Acknowledgement

- First and foremost I would like to express my thanks and deep appreciation to **Prof. Safeya Mahmoud Effat**, professor of neuropsychiatry, Faculty of Medicine, Ain Shams University for her generous effort, continuous support, wise helpful guidance and motherly attitude. No words could describe my appreciation for her encouragement and support, which made the achievement of this work possible, and I will never be able to thank her sufficiently. It is great honor to work under her guidance and supervision.

- I am also deeply grateful and thankful to **Prof. Afaf Mohamed Abd Elsamei**, Professor of Neuropsychiatry, Faculty of Medicine, Ain Shams University for her helpful contributions, keen support and valuable instructions.

- I would like to express my deep thanks and appreciation to **Dr. Hanan Mohamed Ezz Eldien Azzam**, Assistant Professor of neuropsychiatry, Faculty of Medicine, Ain Shams University, for her encouragement and advice throughout the work.

- Many thanks to all **my colleges** who presented me with help and support and were beside me step by step until this work has been finished.

- Last but not least, I wish to express my ultimate thanks and great gratitude to **my mother, my father, my wife and my little son (omar)** for their encouragement and help all-through this work, their continuous endless help, support, and love allowed me to finish this work.

<i><b>Table of contents</b></i>	<i><b>pages</b></i>
<i>List of abbreviations</i>	<b>I</b>
<i>List of tables</i>	<b>III</b>
<i>Introduction</i>	<b>١</b>
<i>Aim of the work</i>	<b>٨</b>
<i>Chapter one:</i> Historical background & Development of complementary and alternative medicine.	<b>٩</b>
<i>Chapter two:</i> Biologically based therapies	<b>١٧</b>
<i>Chapter three:</i> other complementary medicine modalities	<b>٦٩</b>
<i>Discussion</i>	<b>١٠٦</b>
<i>Summary</i>	<b>١٠٩</b>
<i>Conclusion</i>	<b>١١٣</b>
<i>Recommendations</i>	<b>١١٤</b>
<i>References</i>	<b>١١٥</b>
<i>Appendix</i>	<b>١٤٩</b>
<i>Arabic summary</i>	

---

### ❖ **Historical Background:**

Until the arrival of the Romans, medical practices were limited to a basic use of plant materials, prayers and incantations. Having assimilated the corpus of Hippocrates, the Romans brought with them a vast reparatory of herbal treatments and introduced the concept of the hospital as a centralised treatment centre. In Britain, hydrotherapy (the use of water either internally or externally to maintain health and prevent disease) can be traced back to Roman spas (**Jonas et al, ۲۰۰۳**).

The entire Middle East has a rich history of herbal healing. There are texts surviving from the ancient cultures of Mesopotamia, Egypt, and India that describe and illustrate the use of many medicinal plant products, including castor oil, linseed oil, and white poppies. Egyptian hieroglyphs show physicians of the first and second centuries A.D. treating constipation with senna pods, and using caraway and peppermint to relieve digestive upsets. By the seventeenth century, the knowledge of herbal medicine was widely disseminated throughout Europe (**Pain and Stephanie, ۲۰۰۷**).

During the Catholic and Protestant witch-hunts from the fourteenth to the seventeenth centuries, the activities of traditional folk-healers were severely curtailed and knowledge was often lost as it existed only as an oral tradition. The widespread emigration from Europe to North America in the eighteenth and nineteenth centuries included both the knowledge of herbalism and some of the plants themselves. This was combined with Native American medicine and then re-imported to the UK where it re-integrated with the surviving herbal traditions to evolve as today's medical herbalism movement (**Jonas et al, ۲۰۰۳**).

In Islamic tradition, the origins of Islamic medicine can be traced back to the time of the prophet "Muhammad", as a significant number of habits concerning medicine are attributed to him. Although purported by previous physicians like Imhotep, Hippocrates and Galen, the prophet "Muhammad" appears to be the first recorded as directly stating that there is always a cause and a cure for every disease. according to several hadiths in the Sahih al-Bukhari, Sunan Abi Dawood and Al-Muwatta attributed to the prophet "Muhammad", such as: "There is no disease that Allah has created, except that He also has created its treatment". Several Sahaba are said to have been successfully treated of certain diseases by following the medical advice of the prophet "Muhammad". The three methods of healing known to have been mentioned by him were honey, Hijama (wet cupping), and cauterization, though he was generally opposed to the use of cauterization unless it "suits the ailment." According to Ibn Hajar al-Asqalani, the prophet Muhammad disliked this method due to it causing "pain and menace to a patient" since there was no anesthesia in his time (Nurdeen, ۲۰۰۳).

### **❖ Development of complementary and alternative medicine for mental health problems:**

Advocates of complementary and alternative medicine hold that the various alternative treatment methods are effective in treating a wide range of major and minor medical conditions, and there are recently published researches proves the effectiveness of specific CAM therapies (Michalsen et al, ۲۰۰۳).

A higher percentage of individuals who meet criteria for any mental illness use nonpharmacological treatment than among the general population (**Sparber and Wootton, ٢٠٠٢**).

Furthermore, as in the population at large, most people who use a non pharmacological approaches for a mental health problem concurrently use biomedical medicine, And patients who report severe depressed mood or anxiety symptoms use non pharmacological approaches most often (**Unutzer et al, ٢٠٠٠**).

In recent years, however, the popularity of CAM has risen to the point where some treatments are now offered in hospitals, performed by biomedical practitioners, and discussed in medical school courses. CAM no longer signifies therapies necessarily outside of allopathic medicine (**Catherine et al, ٢٠٠٥**).

### **❖ Prevalence of Complementary medicine uses for psychiatric disorder in Children and adolescents:**

A wide range of complementary and alternative medicine (CAM) therapies are used in children, the Commonest complementary treatments includes dietary supplements, herbal regimens, homeopathy, massage, and biofeedback. They may also be used as an alternative intervention for childhood psychiatric problems, An estimated ١١% to ٤٥% of children in the United State have tried complementary and alternative medicine (**Lanski et al, ٢٠٠٣**).

Higher estimates of CAM use more than 50% have been reported for youth with juvenile idiopathic arthritis, cystic fibrosis, attention deficit hyperactive disorder and asthma (**Chan et al, 2003**).

Recent studies indicate that children's diets are not balanced and only 1% meets food pyramid Guidelines. A JAMA review article found that suboptimal intake of Micronutrients were a risk factor for chronic illness and data supported the use of vitamin supplementation as a tool to reduce chronic illness in adults (**Fletcher and Fairfield, 2002**).

For many parents and health care providers of young children with behavior or developmental problems, choosing an effective and acceptable treatment is difficult. As is often the case with chronic childhood disorders such as autism and ADHD, a broad array of treatments have been tried and continue to be used, yet only few of them have been scientifically validated as safe and effective. Despite their questionable efficacy, the use of complementary and alternative therapies, in particular dietary interventions, has become widespread in primary care settings (**Chan et al, 2005**).

### **❖ Factors Delaying Acceptance of the complementary Medicine:**

Despite an atmosphere of increasing intellectual openness to CAM methodologies, many factors are delaying or interfering with the growth and acceptance of nonpharmacological medicine in many industrialized regions of the world (**Linde, 2000**).