

Chapter 8

COMPLEMENTARY AND ALTERNATIVE THERAPY AND NURSING MANAGEMENT IN THE PEDIATRIC PATIENT

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INTRODUCTION

Complementary and Alternative Therapy (CAM) refers to treatment practices outside of modern medicine. To support modern medicine; They are applied as a complement to comfort the patient, to improve their psychology, to strengthen the immune system, or as an alternative by choosing traditional treatment practices instead of modern medicine. (Paknejad et al., 2019; Wopker PM, Schwermer M, Sommer S, Längler A, Fetz K, Ostermann T, 2020).

Several factors, such as the prevalence of the use of integrative medicine in chronically ill children, the desire to reduce the frequency and duration of pediatric prescription drug use, and the need to be more effective, increase the interest in the field of pediatric integrative medicine. In the integrative approach, evidence-based complementary therapies can be used as primary treatments or used in combination with traditional treatments (McClafferty, 2019).

In this section, the concepts related to CAM practices, the methods used in the world and Turkey are defined in line with the literature, the purposes of the use of CAM applications, the applications used in childhood diseases and the COVID-19 pandemic process, and the nursing approaches are discussed.

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CONCEPTS RELATED TO COMPLEMENTARY AND ALTERNATIVE TREATMENT

As CAM approaches, we usually encounter the following basic concepts (Figure 1). CAM is a term used for medicinal products and practices that are not part of standard medical care.

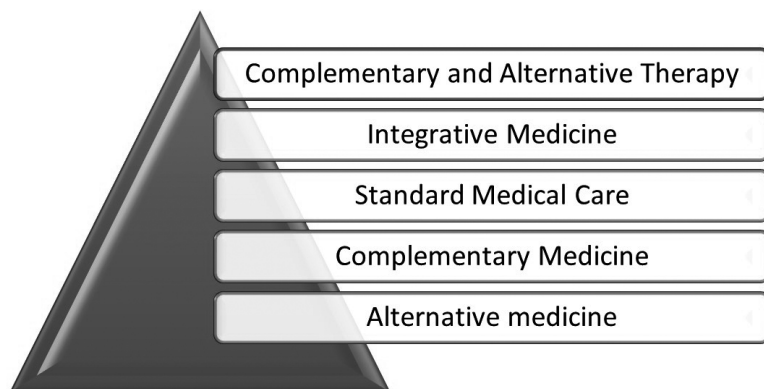


Figure 1. Complementary and alternative treatment approaches
Source: National Cancer Institute. (2022). Complementary and Alternative Medicine.
The figure was created by the authors.

Integrative medicine; refers to medical care that combines traditional medicine with CAM practices proven through science to be safe and effective. An example would be recommending ginger or acupuncture for a pediatric patient who does not want to take antiemetic medication as a treatment for nausea. This approach addresses the mental, physical and spiritual aspects of health and often emphasizes the patient's preferences.

Standard medical care; is a treatment widely used by healthcare professionals and considered appropriate by medical professionals for a particular type of disease.

Complementary medicine; is not accepted as a standard treatment alone, it is used together with standard medical treatment (National Cancer Institute, 2022). Strengthening the patient's immune system, relaxation, and improvement of psychology, etc. targeted treatment methods (Wopker PM, Schwermer M, Sommer S, Längler A, Fetz K, Ostermann T, 2020). An example of this is using acupuncture to help reduce some of the side effects of cancer treatment.

Alternative medicine; is traditional treatment practices used instead of standard medical treatment. An example of this is using a special diet for cancer treat-

ment instead of cancer drugs prescribed by an oncologist (National Cancer Institute, 2022).

HISTORY OF CAM

The origins of complementary and alternative medicine practices can be traced back to traditional Chinese medicine, which originated in Ancient China and developed over thousands of years, and Ayurvedic medicine, which emerged in India more than 3000 years ago. Traditional Chinese medicine practices include the use of herbs, diet, and mind and body practices such as Acupuncture and Tai Chi. The therapeutic practices of Ayurvedic medicine mainly use herbs, this method of treatment combines diet, exercise, and lifestyle. (National Center For Complementary and Integrative Health, 2019b, 2019a).

Modern medicine; excluded such methods because they are not based on scientific explanations. As a result of its increasing popularity in practice, the National Center for Complementary and Alternative Medicine (NCCAM) was established in 1998 in the United States (USA) to put CAM applications on a scientific basis and to ensure the use of applications with proven reliability and effectiveness in modern treatments. In Türkiye, the Regulation on Traditional and Complementary Medicine Practices, prepared by the Ministry of Health and published in the Official Gazette with the number 29158 on October 27, 2014, entered into force (T.R. Ministry of Health, 2014b). With the inspection of CAM applications within the scope of the Ministry of Health, various CAM methods have started to be applied in many health institutions in our country. In Türkiye, the General Directorate of Health Services, Department of Traditional, Complementary and Functional Medicine Applications was established in 2012 under the Ministry of Health (WHO, 2019). NCCAM classifies traditional and complementary medicine practices into five groups alternative medical systems, mind-body interventions, biologically-based therapies, manipulative and body-based practices, and energy therapies (Table 1) (Fan, 2005).

| Table 1. Classification of Traditional and Complementary Medicine Practices | | | | |
|---|--|--|--|------------------------------|
| Alternative Medical Systems | Mind-Body Interventions | Biologically Based Therapies | Manipulative & Body-based Methods | Energy Therapies |
| -Acupuncture -Traditional Chinese medicine -Ayurvedic medicine -Naturopathy -Homeopathy | -Meditation -Biofeedback -Hypnosis -Yoga -Tai chi -Dreaming -Music therapy | -Plants -vitamins -Nutritional supplements -Special foods and diets | -Massage therapy -Chiropractic therapy -Reflexology -Osteopathy | -Reiki -Therapeutic touch |

Source: Fan, K. wai. (2005). National Center for Complementary and Alternative Medicine Website. J Med Libr Assoc., 93(3), 410–412.

The table was created by the authors.

Traditional and Complementary Medicine Practices

The practices accepted in the Regulation on Traditional and Complementary Medicine Practices are shown in Figure 2 below.



Figure 2. Adopted in the Regulation on Traditional and Complementary Medicine Practices
Source: T.R. Ministry of Health. (2014a). T.R. Official newspaper. Regulation on Traditional and Complementary Medicine Practices. September 27, 2014. Number: 29158.

The figure was created by the authors.

Acupuncture: It is the application made to certain special points on the body using methods such as needles, laser beams, and electrical stimulation.

Apitherapy: It is the use of bees and bee products in the supportive treatment of some diseases.

Phytotherapy: It is the treatment practice applied with traditional herbal products and medicines prepared with them.

Hypnosis: It is a method applied to create a change in a person's consciousness, awareness, feelings, emotions, thoughts, or behaviors through suggestion.

Homeopathy: It is a holistic practice that aims to heal with individual selected homeopathic (plants, minerals, and animals) drugs.

Chiropractic: It is a practice that includes hand interventions to the spine, bones, and muscles to correct the biomechanical disorders of the musculoskeletal system and the problems it causes in the nervous system.

Cupping Application (Hijama): These are dry cupping practices based on increasing blood circulation by creating a regional vacuum, and wet cupping applications that allow blood to be taken together with regional vacuum application by creating superficial incisions on the skin in certain parts of the body.

Larvae practice: It is a method applied to provide biodebridement on chronic wounds with sterile larvae.

Leech practice: These are practices where sterile leeches are used to reduce pain in degenerative joint diseases and varicose diseases in the lower extremities.

Mesotherapy: It is the injection practice made with small doses of special needles and techniques into the skin, aiming to heal the pathologies originating from the mesoderm with herbal or pharmacological drugs.

Prolotherapy: In musculoskeletal disorders, it is an injection practice applied to the joint connective tissue to regenerate the damaged area through proliferative and irritant solutions.

Osteopathy: It is a manual supplementary practice applied by hand to strengthen the musculoskeletal system.

Ozone practice: It is the practice of ozone/oxygen mixture to body cavities, and circulatory system locally or systemically.

Reflexology: It is the practice of pressure to the reflex areas of the hands, soles, and ears, which direct the organs and all parts of the body, without using any materials.

Music therapy: It is a clinical and evidence-based practice used by people who are competent in this field to meet the physical, mental, psychological, and social needs of individuals (T.R. Ministry of Health, 2014a).

Usage of CAM in the World and Turkey

The use of CAM practices is increasing in the world and Turkey. CAM practices; It is widely used for reasons such as the idea that it is natural and not harmful, easy to use, easy to access, inexpensive, and does not require invasive intervention. (Özakar Akça et al., 2021). Families who do not want to use drugs in the treatment of their children's disease have started to tend to CAM practices (Ateş & Güngör, 2021). It has been shown in various studies that the use of complementary approaches in children varies between 11% and 81.5% in the world (Farrington et al., 2019; Stampini et al., 2019), while this rate varies between 44% and 87% in Turkey. (Akçay & Yıldırım, 2018; Çalışkan et al., 2015).

Studies on the use of CAM practices in children mostly focus on children with chronic diseases (Adams D, Dagenais S, Clifford T, Baydala L, King WJ, Hervas-Malo M, Moher D, 2013; Özyurt & Tosun, 2022; Surette & Vohra, 2014).

Purposes of CAM Usage

The increase in chronic diseases and the increase in life expectancy increase the interest in CAM methods. CAM practices are mostly used in the adult group, and women use these methods more than men. The fact that CAM applications are found to be effective and safe, the patient's feeling of taking an active role in the treatment, and the fact that they do not include invasive interventions make them easier to use. Factors such as the excessive amount of time allocated to the patient by CAM practitioners and the easy acceptance of these applications, the expensive, inadequate and unsuccessful medical treatment, and the fear of its side effects lead parents to use CAM in their children's illness (Ceyhan & Yiğit Tasa, 2016; Özakar Akça et al., 2021).

CAM methods are used more frequently in children with special care needs, and chronic diseases such as oncology and respiratory diseases. These practices are used by families to support treatment and alleviate symptoms, especially in cases where pain, fever, respiratory distress, cough, and loss of appetite decrease (Bora Çarman, 2018; Genc et al., 2009; Gümüş et al., 2020; Koby Bulut & Bektaş, 2019; Sancaklı et al., 2018; Sezer Efe et al., 2020; Tural Büyük et al., 2022; Yıldız & Yılmaz Yavuz, 2021).

Usage of CAM in Childhood Disease

CAM practices are frequently used in the side effects of oncology treatments, respiratory tract diseases such as allergic rhinitis, asthma, upper respiratory tract infection, infantile colic, constipation, diarrhea, and anemia in childhood (Berg

et al., 2016; Gündüz et al., 2016; Kobya Bulut & Bektaş, 2019; Özakar Akça et al., 2021; Paknejad et al., 2019; Sancaklı et al., 2018; Shen & Oraka, 2012; Yıldız & Yılmaz Yavuz, 2021).

It is seen that the most frequently applied CAM method in the pediatric group is herbal treatment. Parents often use plants and herbal products for their children to protect their children from diseases, to treat them in case of illness, or to support medical treatment. The majority of parents use herbs and herbal products for their children's benefit (Egeli et al., 2022; Kobya Bulut & Bektaş, 2019). It is mostly used in cases such as flu, cold, and cough and to strengthen immunity. The plants used can be listed as linden, mint, lemon, ginger, and turmeric (Egeli et al., 2022). It is seen that herbal products are used most frequently as CAM methods in newborns and infants (Gündüz et al., 2016). Herbal and traditional medicines and manipulations have been reported to be used in childhood constipation (Paknejad et al., 2019). Fennel, chamomile, anise teas, and almond milk are used in case of constipation, colic pain, and gas problems. Sage herb in infants and infants; It is widely used as a relaxing, diuretic, for infection, cough, asthma, and colic. In infants with infantile colic, 1-2 drops of bitter apple oil are applied by massaging the soles of the feet and abdominal region. To avoid undesirable effects, it is important to use herbal products in appropriate amounts and appropriately (Gündüz et al., 2016). If they are not used in the appropriate dose and in the appropriate way, they can cause bad results by affecting the respiratory, nervous, and digestive systems (Arıca et al., 2012)

In pediatric patients with allergic rhinitis, herbal products are mostly used with the idea that they are natural, carob extract, nettle, and cinnamon are used most frequently; It was determined that exercise, prayer, and amulet were preferred among other CAM practices (Sezer Efe et al., 2020). Black cumin/oil, horseradish/honey application, linden, tea tree oil, and carob extract are also used in allergic rhinitis. Apart from herbal practices, eucalyptus-menthol is applied by steam, water vapor, and salt lamp are used (Sancaklı et al., 2018).

CAM practices are also used to reduce cancer and side effects related to cancer treatment in addition to medical treatment. In a study investigating the use of CAM methods in pediatric oncology diseases, it was found that all patients prayed for recovery and most frequently used honey, pollen, royal jelly, and molasses (Bulut et al., 2021). In children receiving chemotherapy treatment, the most commonly used herbal products can be listed as linden, ginger, turmeric, black cumin, and blueberry (Kobya Bulut & Bektaş, 2019).

The use of CAM methods in asthmatic patients is increasing due to long-term asthma treatment, the inability to fully treat asthma, and the concern that medications may have side effects (Yıldız & Yılmaz Yavuz, 2021). Breathing techniques, herbal products, vitamins (Shen & Oraka, 2012), inhalation of steam and oils, topical oils, prayer, massage, and herbal medicines are often applied to children with asthma (Berg et al., 2016) It is seen that most frequently used herbal products in children with asthma are molasses (grape, mulberry, carob), linden, ginger, turmeric, mint-lemon (Yıldız & Yılmaz Yavuz, 2021).

Music therapy, one of the CAM applications, is used to relieve non-pharmacological pain in children. In a systematic review, it was seen that music applied as a non-pharmacological method after surgical intervention in children aged 3-19 years reduced pain, and it was proven by studies that it can have a significant effect on reducing postoperative pain in children (Gümüő et al., 2020). Pediatric nurses give little place to music therapy practice in patient care. In a study evaluating the effectiveness of music therapy training given to pediatric nurses, it was determined that the knowledge scores of nurses increased after music therapy training. For music therapy to be included in nursing care practices and applied more widely, it is important that this training be given to the pediatric care team by experts (Senol et al., 2019).

Considering the CAM practices applied by the mothers to their children aged 3-6 years, it was found that the usage rates were high. It was determined that all of the mothers in the study used at least one of the CAM methods for their children. Mothers often resorted to CAM methods in cases of cough, flu, and fever to strengthen immunity. (Özakar Akça et al., 2021). Before using these practices, it is important for families to be made aware of whether they are evidence-based or not (Ateő & Güngör, 2021).

Usage of CAM in Children During the Pandemic Process

The COVID-19 pandemic is one of the situations in which important developments are experienced in the diagnosis and treatment of the disease, and medical treatment and current medicine are insufficient. This situation has also affected the practices of society to protect the health of the people and pushed people to use CAM methods. The fact that the cultural structure of our society is prone to use CAM methods also supports this situation (Kaplan, 2020; Taőcı, 2015). The lack of definitive treatment for COVID-19 disease and the opinions of some experts on the use of CAM are thought to be factored into the use of these methods. In a study conducted to determine the CAM applications used by parents to pro-

tect and improve their and their children's health during the pandemic process, it was determined that there was a 51.7% increase in the use of CAM in the children of parents during the COVID-19 process compared to the pre-pandemic period (Tural Büyük et al., 2022); The human body needs vitamins and minerals for the maintenance and development of immunity and the formation of a healthy immune response. Adequate and balanced nutrition is of great importance to have a healthy immune system and to be protected from viral infections. When adequate and balanced nutrition cannot be provided, meeting vitamin and mineral requirements with nutritional supplements can be effective in protecting against viral infections. (Bakan et al., 2020; Karaağaç & Bellikci Koyu, 2020). However, there are cases of anaphylaxis as a result of drinking raw quail eggs and contact with cooked quail eggs reported as a result of CAM methods used. In addition to the perception that these methods are harmless and natural, the development of anaphylaxis should also be considered (Başkaya et al., 2019; Sanlidag et al., 2016).

The Role of the Nurse in the Practice of CAM Methods

Today, complementary methods are used in addition to medical treatment to protect, maintain and improve the level of health in cases of illness. The interest shown in CAM methods requires nurses to take an active role in using these methods. For this reason, nurses have a great responsibility in knowing CAM methods and their purpose of use. (Yavaş Çelik et al., 2021). While massage and yoga are among the methods that nurses can apply, phytotherapy, hypnosis, and acupuncture are outside the scope of nursing practices (T.R. Ministry of Health, 2014b).

It is seen that parents who use CAM practices in their children mostly use these applications by getting information from their relatives, the internet/newspaper/television, or friend circle, and do not consult health personnel. In the use of CAM, mothers should be directed to reliable evidence-based sources (Sancaklı et al., 2018; Sezer Efe et al., 2020). Access to reliable information on these methods should be facilitated. In particular, awareness-raising studies should be carried out on the use of herbal products (Kaya et al., 2022). Pediatric nurses need to inform mothers about the possible risks and benefits of CAM practices (Özakar Akça et al., 2021). Since children's liver and kidney functions are physiologically immature, they may be more affected by drugs or substances, and side effects may be more severe in children. For this reason, the use of plants and products obtained from plants in children is also important (Egeli et al., 2022). Patients and parents should be informed that CAM methods should never interfere with medical treatment and should not be used as a substitute for medical treatment. It

should be emphasized that when they want to use any method, they should share it with health professionals (Bulut et al., 2021). However, the majority of parents do not inform the health personnel about the CAM methods they use (Sezer Efe et al., 2020). In a study, it was determined that 62% of the patients did not inform their doctor about this issue (Bulut et al., 2021).

Nurses need to know CAM practices, quality, and safety to manage nursing care. The child and his family should be considered as a whole, and nursing care should be planned by evaluating the cultural structure and practices of the child and family, their values and beliefs, and the CAM practices they use (Koby Bulut & Bektaş, 2019). While providing quality nursing care, nurses should be able to recognize malpractices that will negatively affect patients' health or advance their current illness. In addition, they should teach correct practices to patients and their relatives within the scope of their guidance and educational roles. In the disease history, questions about the views of the patient and their families about medical treatment and CAM methods should be included. (Yayan & Suna Dağ, 2019). Although CAM methods are frequently used by patients, patient relatives, and nurses, most of them do not have sufficient knowledge about this subject (Toprak et al., 2019). In a study investigating the knowledge levels of pediatric nurses about CAM methods, it was found that more than half of the nurses did not know which CAM method their patients were using and did not ask their patients about the CAM method. In the same study, the majority of pediatric nurses stated that training on CAM methods was not included in their educational processes, and more than half of them stated that training on this subject should be given before and after graduation. (Yayan & Suna Dağ, 2019). According to the results of another study on the knowledge levels and attitudes of pediatric nurses, it was determined that the attitudes of the nurses towards CAM practices were positive, and the attitudes of the nurses who worked fondly in the pediatric clinic were more positive. It has been determined that they know the most about prayer, massage, yoga, acupuncture, and reflexology among the CAM applications that they apply the most and recommend to sick children and their families. (Kahraman & Kırkan, 2020).

Nurses are the health personnel who interact the most with families. For this reason, individuals should be warned against methods that are presented as alternatives but whose effectiveness is questionable, which are promoted on social media, and society should be directed to reliable information sources. Family education on rational drug use should be planned (Tural Büyük et al., 2022). To realize all these, healthcare professionals must know CAM practices. They are expected

to know the risks and benefits of these practices, to communicate clearly and effectively with patients and their families, and to have a positive attitude towards CAM practices (Kahraman & Kirkan, 2020; Özakar Akça et al., 2021; Yayan & Suna Dağ, 2019).

CONCLUSION

CAM practices have many effects such as reducing anxiety and fear, providing analgesia, facilitating wound healing, and motivating the patient. It helps to alleviate the symptoms of the disease in chronic diseases. By revealing the mechanisms of action of CAM methods, supporting them with scientific studies, and taking into account the products with positive effects, these applications can be included in modern medicine. Considering all these, CAM methods used today may be an indispensable part of medical treatments in the coming years.

TAT practices are widely used in the world. At the same time, the unconscious use of these methods in healthy and sick children is increasing day by day. Families should be informed in detail about these practices, keeping in mind that even the most innocent applications can have serious side effects. In the anamnesis taken during the routine controls of the patients, questions about the use of CAM on the children of the parents should be included. In addition to the positive effects of CAM use, parents should also be informed that there may be side effects if not used appropriately. Since parents do not know how CAM methods will affect the treatment, they should be encouraged to consult health personnel before using these methods.

The rate of use of CAM methods by nurses is also important in terms of counseling. Pediatric nurses should increase their knowledge level in all areas of CAM practices, and their awareness should be increased by organizing training programs. In this way, it will be possible for children and parents to provide accurate information and effective counseling. It is recommended that CAM practices be integrated into the undergraduate and graduate education programs of the nursing department. As a part of standard nursing education, it is important to inform nursing students, who are health professionals of the future, about the purpose, effects, and safe use of CAM practices.

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