

ORIGINAL

Knowledge and application of Natural and Traditional Medicine in stomatological emergencies. Arroyo Naranjo

Conocimientos y aplicación de la Medicina Natural y Tradicional en las urgencias estomatológicas. Arroyo Naranjo

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ABSTRACT

Given the importance of the use of Natural and Traditional Medicine (NTM) in the treatment of stomatological emergencies, it was decided to carry out a cross-sectional descriptive observational research, with the purpose of evaluating the level of knowledge that stomatology professionals have about the use of NTM in stomatological emergency services during 2015. The universe consisted of 104 professionals of different categories. We analysed variables such as: sex, age, speciality, years of graduation, knowledge of MNT, and the most commonly used techniques. To achieve this, forms were developed to explore these aspects. In the sample of stomatologists studied, the female sex and the 20-35 age group predominated, representing 52,9 % of the total number of stomatologists surveyed. The average level of experience was between 1 and 10 years of graduation, and the dentists were representative of all the stomatological specialities. The use of MNT was 68,2 %, with the residents (EGI speciality) being the ones who applied it the most; this group of stomatologists had the most knowledge on this subject. The most applied techniques were Phytotherapy and the use of propolis, being the Residents and Basic General Stomatologists the ones who use it the most. The evaluation of the level of knowledge of the stomatologists in terms of MNT was not satisfactory; therefore, it is necessary to deepen in this subject in order to achieve a greater incorporation of professionals in the practice of MNT.

Keywords: Natural and Traditional Medicine; Stomatological Emergencies.

RESUMEN

Dada la importancia que tiene la utilización de la Medicina Natural y Tradicional (MNT) en el tratamiento de las urgencias estomatológicas, se decidió realizar una investigación observacional descriptiva de corte transversal, con el propósito de evaluar el nivel de conocimiento que poseen los profesionales en Estomatología, sobre el uso de la MNT; en los servicios de urgencias estomatológicas, durante el 2015. El universo estuvo constituido por 104 profesionales de diferentes categorías. Se analizaron variables como: sexo, edad, especialidad, años de graduado, conocimientos de MNT, y técnicas más empleadas. Para lograrlo se elaboraron formularios que exploraban estos aspectos. En la muestra de estomatólogos estudiada predominó el sexo femenino y el grupo etario de 20-35, representando un 52,9 % del total de estomatólogos encuestados. El nivel de experiencia fue de 1 a 10 años de graduados como promedio; y se logró una representatividad de las especialidades estomatológicas. El uso de la MNT fue de 68,2 %; constituyendo los residentes (Especialidad EGI), los que más la aplican; siendo este grupo de Estomatólogos los que más conocimientos tienen sobre este tema. Se observó superioridad en otras vías de aprendizaje; en cuanto a la adquisición de conocimientos. Las técnicas más aplicadas fueron la Fitoterapia, y el uso del propóleo, siendo los Residentes y Estomatólogos Generales Básicos, los que más la utilizan. La evaluación del nivel de conocimientos de los estomatólogos en cuanto a MNT; fue no satisfactoria; por tanto se necesita profundizar en esta temática para lograr mayor incorporación de profesionales en la práctica de la misma.

Palabras clave: Medicina Natural y Tradicional; Urgencias Estomatológicas.

INTRODUCTION

Natural and Traditional Medicine (NTM), known internationally as alternative, energetic, naturopathic, or complementary medicine, is a worldwide reality, forming part of the cultural heritage of each country, employing practices that vary from one country to another and from generation to generation, since hundreds of years before the development of our present-day medicine.⁽¹⁾

Traditional Medicine is the specialty that includes those methods of health promotion of diseases, diagnosis, treatment, and rehabilitation of patients, employing, among others, Traditional Asian Medicine (acupuncture and related techniques, the use of Microsystems), herbal medicine, relaxation techniques and Hypnosis, apitherapy, therapeutic massages, physical medicine and rehabilitation procedures, Homeopathy, Ozone Therapy, mineral-medicinal waters and other natural elements, mud therapies, the use of magnetic fields and other sources of natural energy.⁽²⁾

Although there is no strict definition for traditional medicine, it generally includes any health-preserving or healing practice that is not part of allopathic or Western medicine proper, in most countries where Western medicine assumes sole responsibility for health care at the national level. Traditional medicine and other therapies concerning national health systems are considered complementary or alternative.⁽³⁾

Most alternative practices have not yet found a place in Western hospitals or doctors' offices. However, new integrated medicine centers offer a combination of conventional and alternative treatments. In these centers, you can receive a prescription for pain and a massage to treat a chronic back problem. They usually employ licensed or certified medical doctors and specialists in various alternative therapies.⁽⁴⁾

During the 1990s, the use of complementary and alternative medicines and therapies increased rapidly in Europe, the United States, and Latin America. In turn, these therapies have become important in health care provision for many developing countries. The WHO, for example, now supports a global plan for these practices to assist countries in regulating traditional and complementary/alternative medicines to make their use safer, more accessible, and sustainable.⁽⁵⁾

Although the demand for alternative and complementary therapies is growing in many countries, the trends differ. In developed countries, the trend is related to the search for better health care. In contrast, in developing countries, it is related to economic aspects, as in the case of indigenous medicine, which is the only available source of health care.⁽⁶⁾

One of the most important is the lack of sufficient scientific research to support its application as part of Western medicine, which is based on a scientific method for acquiring and evaluating the results obtained.⁽⁶⁾

The lack of sufficient scientific studies means it can be challenging to identify potential problems associated with using alternative therapies. Although lifestyle changes are considered harmless adjuncts to regular medical treatment, some medicines, particularly herbal remedies, may harbor certain risks. Unlike prescription drugs, herbal remedies are not strictly regulated, e.g., by the FDA. Without sufficient testing, they do not have to meet specific quality standards. Natural does not mean the same as 'good,' and many people do not consider that herbal remedies can cause health problems.⁽⁷⁾

The most significant risk, however, is the possibility that people may delay or discontinue conventional medical treatment in favor of alternative therapy. Diseases such as diabetes and cancer require the care of a physician. Relying entirely on alternative therapies for any severe acute or chronic disorder can only jeopardize the health of individuals.⁽⁸⁾

Despite the field's growth, most alternative therapies are not covered by health insurance, mainly because few scientific studies have been conducted to prove their efficacy. However, there is considerable variation from one area to another. Instead, most alternative therapies are based on long-standing practices and word of mouth of successful cases.⁽⁹⁾

Traditional medicine has entered a new stage of development in Latin American countries. With the impressive increase in the demand for therapeutic alternatives, foreign concepts, and practices to the biomedical scientific model, traditional medicine is today in a context that did not exist a few years ago. Proof of this is the remarkable growth of some of its resources in industrialized countries, as well as the changes that have occurred in the composition of the supply of therapeutic services, in the ways of understanding health and illness, as well as the combined use of many of these therapeutic forms. However, despite the achievements, some of these efforts have encountered significant obstacles and limitations.⁽¹⁰⁾

There are numerous conceptions of Natural and Traditional Medicine, in which the common denominator is to construct a series of therapeutic diagnoses that base their action on the stimulation of the organism's natural mechanisms and actions of a preventive nature in contrast to those predominant in classical allopathic medicine.⁽¹¹⁾

Medical education must be committed to responding to our population's growing health needs, establishing new and efficient relationships between universities, health services, and society, and its widespread use in developing countries. However, there is skepticism on the part of many allopathic medicine practitioners. Thanks to the professed immunostimulatory effects of some traditional medicines, there is hope among HIV-

infected people, provided that the use of such cures does not confuse people living with AIDS and delay treatment with unproven therapies.⁽¹²⁾

In the last 30 years, alternative medicines have gained momentum mainly because of:

- The short time that the doctor spends in consultation does not allow them to know personal details of the patient's environment, which may be important in the pathology that the patient presents. The deterioration of the doctor-patient relationship is derived from the previous point and the poor public image that doctors have been acquiring.
- The poor or scarce results obtained by some patients with traditional treatments.
- Depersonalisation and dehumanization resulting from the tremendous technological advances, which have only significantly improved diagnostic capacity, and from the ultra-specialization that has led us to examine organs and not people. Hopelessness of doctors and patients.⁽¹³⁾

In Europe and the USA, this phenomenon is so important that health authorities, governments, universities, and professional associations have had to take measures to prevent people with little knowledge from using techniques and medicines, especially phytotherapy and homeopathy, in an uncontrolled and life-threatening manner.⁽¹⁴⁾

First, the term 'complementary medicine' (CAM) was coined, which refers to allopathic doctors who use some alternative medicine terms in their usual treatments. For some years now, these alternative therapies have been taught in European and North American universities, which include them as optional subjects in medical and other health courses, and there are currently some universities that have already incorporated some of these therapies into their curricula.⁽¹⁵⁾

Secondly, the profile of alternative medicine users was defined as people with high incomes, high educational and cultural levels, and medical problems that are difficult to solve with traditional medicine: chronic pain, mental disorders, oncological problems, and HIV.⁽¹⁶⁾

In the USA, the health and university authorities created groups to investigate which therapies were in use, to establish rules to regulate their use, to make a register of people dedicated to alternative medicine, and to disseminate the treatments that had proven to be effective through congresses, courses, magazines, etc., aimed primarily at the medical group.⁽¹⁷⁾

They also facilitated the application of alternative medicine to hospitalized patients, especially in oncology and palliative care units. Their results, most of which were statistically significant, have been published in traditional medical journals.

In Chile, there is a great interest in alternative medicines, which has led to an increasing number of therapies and therapists applying them without medical knowledge and, most of the time, without real knowledge that what they are using may have vital risks.⁽¹⁸⁾

The Pan American Medical Association (AMA) has recognized the need for medical schools to acknowledge interest in alternative practices about health care. The 1997 report on 'Encouraging Medical Student Education in Alternative Medicine Practices' has responded to a request from the AMA to study the development of an optional model curriculum to increase awareness of the frequency of the potential impact on patients' health of different alternative/complementary medicine practices, concluding that medical schools should feel free to design their curricula for alternative/complementary medicine practices.

Feel free to design their own compulsory and optional experiences about the practice of alternative medicines.⁽¹⁹⁾

Natural and traditional medicine in Cuba

Considering the recommendations of the WHO, our country began to rescue natural therapies. Since the beginning of the 1990s, organizational actions have been concentrated on developing other styles in the philosophy of medical thought that have been inserted into the national health system.⁽²⁰⁾

Since 1990, a Commission for the Development of Natural and Traditional Stomatology was created in the National Directorate of Stomatology with three sub-commissions: one for the development of Green Medicine, another for acupuncture, and the third for other modalities including suggestion and hypnosis, apitherapy, electro-magnetotherapy, acupuncture, transcutaneous nerve stimulation (TENS). This working group has jointly boarded the development of these modalities to introduce them into primary care practice in community dentistry, both in research and postgraduate teaching, for further introduction into community dentistry practice, maintaining a sustained and stable development to date.⁽²⁰⁾

Developing preventive medicine and promoting and maintaining human health with the support of all elements of society and nature is the most important and should be the right of all human beings.⁽²¹⁾

Natural and Traditional Medicine's methods and techniques make its actions rich on the healthy and the sick man, hence its importance for stomatology patients.⁽²²⁾

People with more education have more recourse to alternative medicines. There are more users of these

techniques among people with university degrees than among those who have not gone to university, and these therapies are used more by women than by men.⁽²³⁾

The use of acupuncture has been cited as early as 1915 and used since the 1930s and 1950s by professors at the Faculty of Medicine of the University of Havana. Doctors of Pharmacy, Natural Sciences, and Botany researched and gave lectures and free courses on Cuban medicinal plants. This vital base was used to contribute to increasing the therapeutic arsenal that, in conditions of special period, the doctors of the FAR had at their disposal, working scientifically to answer the assistance needs at their level.⁽²⁴⁾

In Cuba, traditional and natural medicine includes the following elements:

- Natural Medicine: Phytotherapy, Apitherapy, Hydrotherapy, Thermalism, Mud Therapy, Exercises, Diet Therapy.
- Traditional Medicines: acupuncture and related variants, Digitopressure and Moxibustion, Acupuncture Microsystems, Traditional Massage, Traditional Exercises, Ayurveda, Yoga.⁽²⁵⁾
- Other medical systems: Homeopathy, Flower therapy and Osteopathy.
- Other therapeutic resources include ozone therapy, Magnet therapy, Physiotherapy, Neural therapy, Microdoses, Therapeutic Hypnosis, and Light therapy.⁽²⁶⁾

Brain-body medicine's most commonly used techniques are biofeedback, relaxation therapies, meditation, hypnosis, and imagination. Bioelectromagnetic techniques study the interactions that exist between living organisms and electromagnetic fields. Within the alternative systems of medical practice, the oldest medical systems, such as Ayurvedic from India and China, are included. Among these, acupuncture is the most widely used. These techniques are complemented by homeopathy, restructured in the late 1700s by Dr. Samuel Hahneman. Manual healing methods include osteopathic and chiropractic manipulation, massage, laying on of hands, and physical exercise. Biological and pharmacological treatments include, among many others, shark cartilage, ozone, zeolite, honey, and waxes.⁽²⁷⁾

In contrast to the progress made in the development of new medicines worldwide, the use of natural medicine is gaining more and more advocates and practitioners, mainly due to the fundamental forms of healing and the lack of side effects of these therapies. The main problem in achieving greater incorporation of specialized personnel in the practice of the different natural therapies is the lack of a specific orientation that favors the minimum essential knowledge for their use.⁽²⁶⁾

In Cuba, many natural treatments have been applied to common affections of the population. Still, it is necessary to evaluate the results obtained from the different therapies scientifically and incorporate our medical and stomatological personnel into this field. Not all health professionals are trained in the management of this discipline since the study programs of medicine, stomatology, and nursing did not include this content in the curriculum until recently.⁽²⁶⁾

Training all personnel allows the correct and rational use of MNT and considerably saves material resources. It also avoids the use of medicines with adverse reactions. It slows down the evolution of illnesses before they require more expensive and traumatic specialized medical intervention, helping to rescue the integral and multilateral approach of medicine, which, as mentioned above, not only takes into consideration the physical body but also the psyche and the social environment in which man finds himself.

Studies carried out in this municipality have shown that one of the inconsistencies in the application of the National Programme of Natural and Traditional Medicine is the lack of knowledge of health professionals about the therapeutic procedures of MNT, which has been one of the problems for its development. Numerous research studies describe the use of Natural and Traditional Medicine, demonstrating the effectiveness of all these natural therapies, and most of them have a marked use in the entities of the stomatognathic apparatus. However, there have been many obstacles to generalizing their application in stomatological services for diagnosing and treating urgent oral conditions quickly, effectively, and with the least presence of adverse effects, which may be related to the domain of health professionals about these therapeutic procedures.^(28,29)

MNT should be used as one of the main tools for treating dental conditions, independently of traditional techniques, since it requires less cost in certain situations.

The main problem in achieving greater incorporation of specialized personnel in different natural therapies is the lack of specific guidance that provides the minimum knowledge necessary for their use.

To explore the knowledge that stomatologists, graduates, and stomatological care technicians in the municipality have about MNT, this study will be carried out to answer the following question, which constitutes our scientific problem:

What is the level of knowledge that stomatology personnel possess about using Natural and Traditional Medicine in treating stomatological emergencies?

Objectives

General objective

To evaluate the level of knowledge and the application of Traditional and Natural Medicine by dental

professionals in the municipality of Arroyo Naranjo in treating dental emergencies in 2015.

Specific objectives

1. To determine the study population according to demographic variables, specialty, and years of graduation.
2. To establish how to acquire knowledge of Natural and Traditional Medicine and the level of knowledge of stomatology professionals.
3. To identify the therapeutic knowledge of Natural and Traditional Medicine most commonly used in treating stomatological emergencies.

Theoretical framework

Traditional medicines and therapies are a body of medical knowledge that existed long before the development and spread of Western medicine. They reflect a country's culture, history, and beliefs. This knowledge is often passed orally from generation to generation.^(30,31)

Reading the expression 'alternative or complementary medicine' may conjure images of herbal teas, poultices, chanting, or meditation. Herbal remedies, meditation, and dozens of other treatments fall into the categories of alternative and complementary medicine.⁽³²⁾

The US National Library of Medicine states that therapies are complementary to conventional treatments and alternatives when used instead of conventional treatment.^(32,33)

The medicines most recognized for their tradition and importance can be divided into two broad classes:

1. Traditional:
 - Traditional Chinese medicine.
 - Ayurvedic (Indian) medicine.
 - Unani medicine (a modified Greco-Arabic medical system developed due to the influence of Greek philosophy, science, and medicine on the Arabs and is practiced in South India and Pakistan).
 - Indigenous medicine.
2. Non-traditional:
 - Homeopathy.
 - Chiropractic.

Therapies, in turn, can be classified as follows:

1. Medicated Therapies:
 - Medicinal plants and herbal medicine.
 - Mineral materials.
 - Animal materials.
 - Diet and nutrition.

The most common disciplines are herbal medicine, homeopathy, acupuncture, Ayurvedic medicine, and chiropractic.

2. Non-Medication Therapies:
 - Acupuncture.
 - Manual therapy.
 - Traditional Exercises (Qigong, Taiji, and Yoga).
 - Physical, mental, spiritual, and mind-body conjunction therapies.

The National Center for Complementary and Alternative Medicine (NCCAM) in the United States recognizes seven major areas of knowledge in traditional medicine. They include:⁽³⁴⁾

Acupuncture, i.e., stimulating different points on the body (usually with needles) to heal; traditional oriental medicine, which deals with diagnosing energy disorders in the body; and homeopathy, which treats health problems with very diluted substances.

Acupuncture is a form of therapy and health maintenance, initially developed by the Chinese, whereby specific points on the skin are stimulated to bring about a balancing of the body's energy, and which has proven effective in the regression of numerous signs, symptoms, and syndromes affecting man.⁽³⁵⁾

Phytotherapy or herbal medicine comprises many plants used as medicine or for nutrition.

Phytopharmaceuticals may be prepared in the form of tincture or flower extract depending on the concentration of the preparation:

- Tincture: hydroalcoholic preparation up to three dilutions.
- Fluid extract: from the fourth dilution onwards. It is more concentrated and is therefore prescribed in drops.

They can also be prepared at home for use within 24 hours in different forms:

- Stews: whole plant boiled.
- Infusion: freshly boiled water and add plant.
- Macerated: crush and add boiled water.

In the case of home preparation, specific indications should be taken into account, such as:

- Do not store in metal containers.
- Do not use it for a long time.
- Do not mix the plants.

Propolis is a resinous substance produced by bees. Its components include waxes, essential oils, pollen, fatty acids, and vitamins A, B1, B2, and C. Propolis has anti-inflammatory, antitoxic, bacteriostatic, bactericidal, healing, and anesthetic properties.

It can be presented in various forms, such as cream, talc, ovules, suppositories, tinctures, and fluid extracts. It should not be used in patients allergic to bee stings.⁽³⁶⁾

Manual healing treats medical problems by manipulation and realignment of the various parts of the body. The most recognized method is chiropractic, which focuses on the nervous system and the realignment of the spine. Other forms of manual healing include massage, osteopathic medicine, which uses manipulation in addition to traditional medicine and surgical treatment, and contact healing, in which practitioners place their hands on or near the patient to direct energy to the diseased part of their body.⁽³⁷⁾

Diet which aims to introduce changes in people's diet or lifestyle. Many people take supplementary nutrients if their usual diet does not contain enough vitamins or minerals, and people with chronic diseases such as heart disease or diabetes often change their diet or habits to keep the problem under control. This is one of the most valuable forms of alternative care because changing habits and diet help treat and prevent numerous diseases. This part of alternative medicine is widely accepted in the Western medical model.⁽³⁸⁾

Mind and body control focuses on the role of the mind in the disorders that affect the body. Hypnosis, a type of conscious sleep, can help some people treat addictions, pain, or anxiety, while treatments such as psychotherapy, meditation, and yoga are used for relaxation.

Drugs and vaccines that traditional medicine has not yet accepted are also considered alternatives. Eventually, some of these may become regularly prescribed treatments after much testing and FDA approval.

Bioelectromagnetism, an emerging area of study that focuses on determining how changes in the body's electromagnetic fields can affect health, is based on the idea that electrical currents in all living organisms produce magnetic fields that extend beyond the body.

However, the frontiers of alternative medicine are constantly shifting in the United States, as doctors increasingly accept different types of treatments and patients request them more frequently. Some practices (such as hypnosis), which were considered absurd 20 years ago, are now regarded as helpful therapies in addition to traditional medicine.⁽³⁹⁾

In recent times, in Latin American countries and other continents, the use of natural and biological elements has emerged in medical sciences, and our Ministry of Health has laid the main foundations for action to improve the health of the Cuban population.⁽⁴⁰⁾

In MNT, there are diagnoses through skin temperature resistance, which are two physical parameters, and their changes in values at specific points are associated with the existence of pathologies as these are separated, the more critical the stage.^(41,42)

There are holographic analogies in the mouth and other parts of the body.

Dr. Gledisth discovered that the set of oral acupuncture points forms a complete microsystem with an apparent reference to the meridian system; when an acupuncture meridian is subjected to some stress, the corresponding oral acupuncture points become very sensitive to localized pressure; this can be used for both diagnostic and therapeutic purposes.⁽⁴³⁾

Homoeopathy also has a very wide field of action in clinical and surgical treatments and rapid patient recovery. The UK, France, and the USA consider it international.⁽⁴⁴⁾

Homeopathy takes the theme of medicine in the saying that there is no illness but only sick people, so it deals with the individualization of the ill person and their environment.⁽⁴⁵⁾

Homeopathy is one of the therapies aiming to cure according to the natural laws of healing. It is prescribed according to the law of resemblance, which states that disease can be cured by substances capable of causing similar conditions or symptoms.⁽⁴⁶⁾

There is a vast amount of homeopathic experience in treating chronic conditions. However, the efficacy of this therapy is recognized in acute conditions very frequently in stomatological practice.⁽⁴⁷⁾

It should be remembered that in this therapy, one medicine is not practical for all people suffering from the same disease, but the individual characteristics of each person must be taken into account.⁽⁴⁸⁾

MNT techniques can be used in patients with bacterial manifestations such as abscess, pyodermitis, folliculitis, candidal cheilitis, or lesions such as leukoplakia or stomatitis.⁽⁴⁹⁾

Using CO₂ laser for the surgical treatment of leukoplakia, haemangioma, and fissured epulis is advantageous because it reduces bleeding, provides good visibility of the operative field, and reduces pain and scarring.

Ozone is currently being applied after more than 25 years of work experience in the study of chemistry and health applications, with solutions applicable in places, polyclinics, hospitals, and scientific research. The strong oxidizing and disinfectant character of ozone allows, among other things, the control of organic and inorganic contamination, effective and rapid destruction of bacteria, and the inactivation of viruses.⁽⁴⁵⁾

Ozone is nothing more than triatomic oxygen molecules. Among its main properties are:

- It favors the rheological activity of the blood (it gives elasticity to the erythrocyte, favoring its greater penetration).
- It stimulates biochemical processes and cycles and increases the capacity of oxygen reabsorption to the tissues.
- The effects described are anti-inflammatory, analgesic, immunosuppressive, healing, bactericidal, and bactericidal healing, bactericidal, virucidal and fungicidal.⁽⁴⁵⁾

There are stomatological emergencies that occur in the services for which there is a solution to alleviate the patient's pain, and sometimes, due to a lack of knowledge, we do not achieve a successful treatment. Some examples are:

Recurrent Aphthous Stomatitis (RAS) is a form of ulceration affecting the buccal mucosa, of frequent presentation, characterized by the appearance of one or more painful ulcers with loss of continuity of the epithelium, variable in shape, number, and size. Depending on the risk factors that trigger it, it heals in a few days, weeks, or months. The attacks can be repeated periodically.⁽⁴²⁾

The treatment from the point of view of Natural and Traditional Medicine is as follows:

- Phytotherapy: three times a day, wash your mouth with calendula, plantain, chamomile, or rosemary; apply chamomile cream, plantain cream, or aloe cream (25 % or 50 %), or rub aloe vera crystals.
- Acupuncture: Ig-4, Vg-26, Vg-20, Vc-24, Vc-12, Id-18.
- Acupressure: this can be applied to the same acupuncture points with firm pressure.
- Auriculopuncture: upper or lower dental analgesia, anxiolytic, shamen, stomach, spleen, pancreas, mouth, and tongue.⁽³⁰⁾
- Propolis: after cleaning the affected area with distilled water, apply 5 % propolis tincture 2 or 3 times a day for 7 days or indicate in the form of mouthwashes before meals (for its anesthetic power) by dissolving the propolis in distilled water.
- Honey: after cleansing the area with distilled water, apply to the lesion 2 or 3 times a day for 7 days. It can be combined with 5 % propolis tincture or aloe vera.
- Homeopathy: the following medicines can be indicated according to each patient's individuality: Ignatia, Natrum muriaticum, Arsenicum album, Borraz, Mercurius cyanates, Mercurius solubilis, Mercurius corrosive, and Nitric acid.⁽³⁰⁾

Herpetic Gingivostomatitis (HSG) is a viral disease caused by the herpes simplex virus type I. It is acquired in early childhood, but it is less frequently found in adolescents and adults and constitutes an emergency in dentistry.⁽⁴²⁾

Treatment from the point of view of Natural and Traditional Medicine is as follows:

- Phytotherapy: mouthwashes of calendula, plantain, chamomile, or rosemary 3 times a day; apply cream of plantain, chamomile cream, and aloe cream (25 % or 50 %) or rub the aloe vera crystal 3 times a day.
- Propolis: after cleaning the affected area with distilled water, apply 5 % propolis tincture 2 or 3 times a day for 7 days or use it as a mouthwash before meals (for its anesthetic power) by dissolving the propolis in distilled water.⁽³⁰⁾
- Honey: after cleansing the area with distilled water, apply honey to the lesion 2 or 3 times a day for 7 days. It can be used in combination with 5 % propolis tincture or aloe vera.
- Homeopathy: the following medicines can be indicated according to each patient's individuality: Arsenicum album, Belladonna, Natrum muriaticum, Rhus tox, and Mercurius solubilis.⁽³⁰⁾
- Acupuncture: points for sedation and pain: Ig 4, E 44, Pc 6, C 7.
- Auriculopuncture: upper or lower dental analgesia, anxiolytic, anxiolytic, shamen, stomach, spleen, pancreas, mouth, and tongue.

Gingival abscess is a purulent inflammation in the gum, which can occur in healthy individuals and those

affected by periodontal disease. It is due to the action of pyogenic micro-organisms that have penetrated and established themselves within the gingival tissues through a break in their surface. This loss of tissue continuity is associated with the individual's susceptibility, and the micro-organisms develop the disease. It is of rapid onset; it appears as an increase in volume located in the papilla or the marginal gum, rounded or ovoid in shape with a tense and smooth surface and bright red color.^(42,30)

The indicated treatment is closely linked to Natural and Traditional Medicine. Anesthesia can be performed by infiltration, conventional methods, or natural and traditional medicine (acupuncture, homeopathy, and hypnosis).⁽⁴²⁾

A vertical incision is made in the area of greatest decline. The incision is gently widened to facilitate drainage and to carry out a careful curettage of the area.

It is washed internally with a physiological saline solution, 5 % propolis tincture, or 0,2 % aqueous chlorhexidine and covered with a swab. Brushing is oriented after each meal and before going to bed. Mouthwashes with warm saline solution (two spoonfuls of salt in 1 liter of boiled water) 3 times a day may be indicated.⁽³⁰⁾

Phytotherapy: mouthwashes with calendula, plantain, or camomile 3 times daily.

Propolis: after draining the abscess, wash it with a 5 % propolis tincture dissolved in distilled water. Generally, it does not require drainage.

Periodontal abscess is an acute purulent inflammatory process caused by pyogenic microorganisms associated with an individual's susceptibility. It is located in the soft wall of the periodontal pocket and is the most frequent complication of periodontal diseases.⁽⁴²⁾

It is treated as an emergency, and consultation is necessary to define the continuity of treatment once the acute phase has been controlled.^(30,42)

Drainage of the abscess consists of the following steps:

- Anaesthesia can be done by conventional methods or with natural and traditional medicine (acupuncture, homeopathy, and hypnosis).
- Vertical incision in the area of greatest decline; sometimes, the incision is unnecessary, and the drainage is done through the bag.
- The dental cement is scraped, eliminating all the tartar present; the soft wall is removed; the area is washed with physiological saline solution or 0,2 % aqueous chlorhexidine, and gauze dressings are applied, the patient is given warm saline solution mouthwashes, analgesics, and tooth brushing.⁽³⁰⁾
- Phytotherapy: after drainage of the abscess, indicate mouthwashes with calendula, plantain, or chamomile 3 times a day.
- Propolis: rinse with 5 % propolis tincture after periodontal abscess drainage.
- Homeopathy: according to the individuality of each patient, the following medicines can be indicated: Hepar Sulphur, Silicea, Lachesis, Pyrogenium, Tarentula cubensis, Myristica sebifera, Anthracinum.
- Antibiotics are considered if there are systemic manifestations (fever, lymphadenopathy, etc.).
- The disease progresses after 48 hours.

Profuse gingivorrhage is the continuous or intermittent extravasation of blood from the periodontal tissues. It can occur in patients who have not received previous periodontal treatment or in those who have recently undergone periodontal surgery. It is manifested by profuse bleeding from the operated area.

The indicated treatment is as follows:

- Remove the periodontal dressing and detect the bleeding point.
- Haemostasis by compression.
- Electrocoagulation.
- Suture or antihæmorrhagics if necessary.
- Repositioning of the periodontal dressing will be assessed.
- Acupuncture: Ig-4, B-10, Ig-11, E-2, 3, 4, 5, 6, 7.
- Homeopathy: the following medicines can be indicated according to each patient's individuality: Arnica Montana, Phosphorus, Lachesis, China secale cornu Tum, and Ferrum phosphoricum.
- Suggestion and hypnosis.

Suggestion techniques can be used to stop the bleeding. The most common and frequent cause of our patients attending our dental emergency department is dental pain. According to the definition of the Analgesiology Group, pain is an unpleasant sensory and emotional experience related to real or apparent tissue damage.⁽²⁵⁾

There must always be tissue damage for pain, so it seems to be a chemo-sensitive process because the damaged tissue releases chemical mediators, including PG. E. 2 (prostaglandin E 2) and bradykinin among others.⁽¹⁾ The apparent damage refers to ischemia that does not necessarily have to be tissue ruptured for the mediator to be released and thus excite the nerve endings. Example: anginal pain, the coronary vessel is

closed by spasm, there is no myocardial injury, but there is retrosternal pain. The pulp is similar. Anything that involves removing the nutritional supply triggers the alarm (meaning the generation of pain due to the release of chemical mediators, and this is because the nerve endings are excited).⁽¹⁾

The treatments described here are mainly described as ‘natural resources’ that people can use to overcome the pain or as a complement to dental treatment whenever the specialist considers it appropriate.

Phytotherapy focuses on using plants for a dual purpose:

- To reduce inflammation in the affected area.
- Soothe the pain.⁽²²⁾

Among the many plants that can be used are the following:

- Willow: (*Salix* sp.) High salicin content, the principle of aspirin. Do not take aspirin if you have an allergy. Prolonged use of it can irritate the stomach.
- Melissa: (*Melissa officinalis*) Its slightly narcotic effect and analgesic effect can be used to numb unpleasant dental pain (infusion of one tablespoon per glass of water for 15 minutes, 3 or 4 glasses per day).⁽³⁰⁾ Infusion of 4 tablespoons of dried plant per liter of water. Rinse teeth thoroughly with the liquid resulting from the infusion.⁽²¹⁾
- Camomile: (*Matricaria chamomilla*) Cold mouthwashes made with the infusion of the dried plant as many times a day as desired.
- Ginger (*Zingiber officinale*) Infusion of a handful of ginger root in a liter of water. Wet a compress and apply it very hot on the joints for 15 to 20 minutes. Repeat the treatment every 6 hours. Rub the painful area with ginger oil mixed with almond oil.
- Clove: (*Zyzygum aromaticum*) Wet a piece of cotton wool with a drop of clove oil and apply it on the sore tooth. Do not swallow. Do not use too much clove oil to burn the mucous membrane surrounding the tooth.
- Swedish bitter: rinse with this preparation diluted in water (it can be found in herbalists and health food shops).
- Arnica: rinse with the liquid by mixing a teaspoon of arnica extract and salt in a glass of water. Do not swallow.
- Garlic: (*Allium sativum*) Boil two or three crushed garlic in a glass of vinegar for 2 minutes.
- Lavender (*Lavandula* sp), mint (*Mentha arvensis*, *mentha piperita*, *mentha rotundifolia*, etc.), and mullein (*Verbascum thapsus*): Their bactericidal properties make them particularly suitable. (Put a couple of drops of oil from one of these plants inside the tooth, then cover with cotton wool).
- Sauco: (*Sambucus nigra*) Vaporisation of a decoction of a handful of flowers in water.

We can also use some homeopathic medicines to treat pain of dental origin. It is best to consult a specialist or qualified personnel through previous courses and research, i.e., master’s degrees, postgraduate courses, and advanced courses.

Among these medicines are the following: *Arnica*, *Hypericum* 6, *Mercurius*, *Pulsatilla*, *Belladonna*, *Apis*, *Bryonia*, *Plantago*, *Coffea*, *Staphysagria*, and *Calcarea*.⁽²²⁾ Hydrotherapy may be appropriate when the teeth hurt; the alternative application of heat and cold can help to soothe the pain; apply a hot compress on the painful area, remove it, and apply an ice pack.⁽²⁴⁾

In case of inflammation, you should not apply heat as heat can aggravate inflammation. In this case, only cold should be applied. However, it should be noted that some people are susceptible to colds on their teeth, and applying colds may cause them more pain.⁽²⁴⁾ Oleozon has many properties that make it useful in medicine.

Ozone destroys bacteria. This effect can be attributed to its high oxidizing capacity. It has such a germicidal power that only a few micro-organisms per liter are sufficient to show such an effect.⁽⁵⁰⁾

Since no anaerobic bacteria, viruses, protozoa, or fungi can live in an atmosphere with a high concentration of oxygen, all diseases caused by these pathogens are potentially curable by the action of ozone. This is the basis of oxygen therapy, bio-oxidative therapy, and autohaemotherapy. It is an inexpensive, simple, and broad-spectrum procedure that many believe could force a complete overhaul of the medical industry. Besides its oxidative power, the most important fact to highlight is its interaction with organic unsaturated compounds, a process called ozone lysis. This reaction promotes the organic detoxification of many substances, some of which may even be carcinogenic. It favors tissue regeneration and has high healing power.

In the treatment of alveolitis, we can also use propolis, whose scientific name is *Propolis* from *Apis Mellifera*; it is a complex organic substance soluble in 70 % alcohol which contains a mixture of products which are its active principles: resins, tannins, wax, ethereal oils, proteins, glycosides, microelements, organic acids, ceramic, cephalic and ferulic acids, flavonoid compounds.⁽²⁸⁾

In recent years, natural medicine has gained a relevant place in treating multiple pathologies, and API drugs such as propolis are reliable examples of these achievements.

For many years, many researchers worldwide have been tasked with studying the origin, composition, and ways to use this medicine, which is a substance made by bees with extensive therapeutic properties. There are references that in ancient times, it was used by Galen, Varicennes, and Avicenna to heal wounds and research this substance. Its popularity was acquiring relevance first for its empirical use, and nowadays, it is widely spread.

It has been used in some stomatological affections in different parts of the world and our country with satisfactory results. Propolis has several properties that make it one of the most powerful medicines, such as:

- Analgesic, anti-inflammatory, antiseptic, and healing effects.
- Immune system stimulant.
- Antioxidant, antiviral, antifungal, and antiparasitic effects.
- Bacteriostatic and bactericidal effect.

METHOD

Type of study

Descriptive observational cross-sectional study was conducted to assess the knowledge and application of Natural and Traditional Medicine in treating stomatological emergencies in stomatology professionals working in the municipality of Arroyo Naranjo in 2015.

The universe and sample

Universe were constituted by the total of stomatology professionals belonging to the municipality of Arroyo Naranjo during the study period, which was 248 of the study universe; the final sample was represented by 104 professionals made up of residents of the Specialty of EGI, Stomatologists, and specialists in stomatological care who met the selection criteria.

Inclusion criteria

Stomatologists, specialists, and residents belonging to the municipality of Arroyo Naranjo who were working at the time of the research and gave their consent to participate in the study.

Exclusion criteria

Stomatologists, specialists, and residents who were not working during the time of the research, or who did not correctly complete the data collection process. to achieve the objectives set, the variables were operationalized as follows:

Table 1. Characterization of variables related to the use of MTN techniques in dental emergencies

Variables	Type of variable	Categories	Description	Indicator
Sex	Qualitative nominal dichotomous	Female Male	According to biological sex	Absolute frequency and percentage
Age	Discrete quantitative	20-35 36-59 60 or more	According to years of age	Absolute frequency, percentage and mean
Speciality	Qualitative nominal dichotomous	EGI EGB Specialist Resident 1st year (EGI). 2nd Year Resident (EGI).	According to the interviewee	Absolute frequency, percentage
Years of graduates	Discrete quantitative	1-10 11-20 21 or more	According to years of graduation	Absolute frequency, percentage and mean
Use of TRM in the emergency department	Qualitative nominal dichotomous	yes No	As reported by the interviewee and observation direct	Absolute frequency, percentage
Knowledge of TRM techniques in emergencies	Qualitative nominal dichotomous	Adequate Not suitable	Adequate: when they refer to knowing three or more therapeutic procedures. Not adequate: when they report knowing two, one, or none of the therapeutic procedures.	Absolute frequency, percentage
Application of Techniques of TRM Techniques	Qualitative nominal dichotomous	Adequate Not suitable	Adequate: when they apply three or more therapeutic procedures in their work.	

in stomatological emergencies.				Not adequate: when they apply two, one, or none of the therapeutic procedures.	Absolute frequency, percentage
Final evaluation	Qualitative dichotomous	nominal	Satisfactory Not satisfactory	According to the results of knowledge of the techniques Application and questionnaire Satisfactorio: when they apply more than three techniques Unsatisfactory: when less than three techniques are applied techniques.	Absolute frequency, percentage.
Time to Acquiring knowledge	Qualitative Polytomous	Nominal	Pre-grade Postgraduate Other	Undergraduate: during the Career and scientific conferences. Postgraduate: during specialisations. Other ways of further education: Diplomas Master's Degrees Municipal courses	Absolute frequency, percentage.
Therapies applied in emergencies	Qualitative polytomous.	nominal	Phytotherapy Acupuncture and related techniques. Homeopathy Hypnosis Ozone therapy Flower therapy	Depending on the therapy applied	Percentage

Medical ethics

To carry out this research, the basic principles of ethics of respect were taken into account: giving people autonomy, using beneficence in the handling and dissemination of data, and, above all, applying justice in research.

In order to comply with these principles, we obtained the consent of the health authorities and the professionals who took part in the study. We explained what the research consisted of, the objectives, and the benefits that could be expected from it, respecting their decision to participate through informed consent. The research data were strictly confidential for the researcher.

Techniques and procedures

Source of information used:

- Literature review.
- Direct observation.
- Records of the human resources department of the Municipal Health Directorate of Arroyo Naranjo.
- Data collection questionnaire.
- Questionnaire on the level of knowledge.
- Consultation of experts on the subject.

Method of data collection

Data collection was obtained by applying a general data collection questionnaire with nine questions, which also provides an expanded and comprehensive version of the use of Natural and Traditional Medicine. This was done anonymously and to all practitioners on the same day to avoid bias.

This was followed by a questionnaire to measure the practitioners' level of knowledge, which consisted of 5 questions with a value of 20 points each and was subsequently tabulated. Knowledge was considered adequate if the score was equal to or higher than 80 points and not adequate if the final score of the professional was lower than 80 points.

For the final evaluation of the level of knowledge, the following were taken into account:

- Knowledge of MNT techniques.
- Application of these techniques.
- Adequate knowledge rating.

All respondents who fulfilled the above requirements were assessed as satisfactory, and those who failed in at least one of them were evaluated as unsatisfactory in their final knowledge of MNT.

Information processing

The information obtained from the sources above was transcribed into tables created using a Dual Core

computer with the Microsoft Excel system on the Windows Seven 32-bit operating system. The statistical package SPSS version 11.5 for Windows was used for processing and analysis. Absolute frequencies and percentages were used as summary measures for qualitative variables. For discrete quantitative variables, the mean, with its confidence interval of 95 % reliability, was used as a measure of central tendency. For the chronogram of execution of the tasks, the Gantt diagram was used as a tool through Microsoft Project, which allows me to show the tasks, their duration time, and the beginning and end.

The results are exposed through tables and graphs for a better understanding. They were presented in double-entry tables and some graphs that facilitated the analysis process, the ascension of logical and concrete thinking in the discussion process, and comparison with the bibliographies consulted, which facilitated the issuance of the conclusions and made some precise recommendations.

RESULTS AND DISCUSSION

Table 2. Distribution of dental professionals according to age and sex

Age	Sex					
	Male		Female		Total	
	No	%	No	%	No	%
20-35	26	25,00	29	27,88	55	52,88
36-59	21	20,19	25	24,04	46	44,23
60 o mas	2	1,92	1	0,96	3	2,88
Total	49	47,11	55	52,88	104	100

As can be seen in table 2, of the total number of professionals surveyed, the female sex predominated,⁽⁵⁵⁾ representing 52,9 %, while the 20-35 age group stood out most, with 52,9 % of the total number of those surveyed.

This result is logical if it is known that in the municipality, the female sex is predominant in terms of the total number of stomatologists working in the municipality, according to the data collected from the review of the records of the Human Resources Department. These results correspond to other research in the municipality and others in the national and international literature review.^(51,52,53,54)

Table 3. Distribution of dental professionals by occupational category and years of graduation

Occupation	Year of graduation							
	1-10		11-20		21 and over		Total	
	No.	%	No.	%	No.	%	No.	%
Specialists	3	2,88	4	3,85	5	4,81	12	11,54
EGI	11	10,58	5	4,81	-	-	16	15,38
EGB	12	11,54	7	6,73	2	1,92	21	20,19
Residents 1(EGI)	32	30,77	5	4,81	-	-	37	35,58
Residents 2(EGI)	16	15,38	2	1,92	-	-	18	17,31
Total	74	71,15	23	22,12	7	6,73	104	100

Table 3 shows the distribution of the professionals according to occupational category and work experience. First-year residents (resident 1) predominated in the population studied, with 37 professionals (35,6 %), followed by Basic General Stomatologists (EGB) and second-year residents (resident 2), with a total of 21 and 18 professionals, respectively, representing 20,2 % and 17,3 %.

About the years of experience in the sample studied, the group of 1-10 years of experience predominated with 74 professionals (71,2 %), followed by the group of 11-20 years with 23 (22,1 %).

These results do not coincide with Díaz Medero's⁽⁵⁵⁾ research in the municipality of 10 October, where the figure that stands out most is that of the professionals with more than 11 years of graduation.

Table 4 shows the distribution of the surveyed dental professionals according to their use of NTM (Natural and Traditional Medicine) and occupational category. Of the 104 professionals surveyed, 71 (68,3 %) use NTM during emergency patient care, and 33 (31,7 %) report not using it.

Table 4. Use of natural and traditional medicine in stomatological emergencies according to occupational category

Occupation	Usage					
	Yes		No		Total	
	No.	%	No.	%	No.	%
Specialists	7	6,73	5	4,81	12	11,54
EGI	11	10,58	5	4,81	16	15,38
EGB	12	11,54	9	8,65	21	20,19
Residents 1 (EGI)	26	25,00	11	10,58	37	35,58
Residents 2 (EGI)	15	14,42	3	2,88	18	17,31
Total	71	68,27	33	31,73	104	100

Residents 1 (first-year EGI residents) were the most frequent users of MNT, with 26 professionals (25,0 %), followed by residents 2 (second-year EGI residents) with 15 professionals (14,4 %). Specialists were the least frequent users of MNT, with only seven professionals (6,7 % of the total). Some specialists believe that it is tough to treat children with this therapy, as they do not carry out the treatment, even if their parents supervise them; several Basic General Stomatologists do not use it, as they do not have proof of the veracity of these treatments.

The total number of first-year residents was the most indicative figure to demonstrate the use of these MNT techniques, as they constitute the largest number of professionals surveyed and have also received constant training in the courses and specialties taught.

The author believes that linking these techniques to teaching or postgraduate courses should increase the motivation and incorporation of professionals in the use of these techniques.

The results obtained in this study are not similar to those of Díaz Mederos,⁽⁵⁵⁾ where only three Basic General Stomatologists do not use Natural and Traditional Medicine in stomatological emergency services.

In the Cuban literature, many studies show the efficacy of various NTM techniques in the treatment of various stomatological pathologies, such as the use of 25 % aloe cream and ozonized sunflower oil in subprotocol stomatitis grades I and II, the use of propolis in the treatment of pulpotoomies of primary molars with dead pulps, in chronic parotitis in children and the treatment of alveolitis and aphthous stomatitis.^(56,57,58)

Table 5. Distribution of dental professionals according to the ways of acquiring knowledge of Natural and Traditional Medicine; and occupation

Occupation	Undergraduate		Post-graduate		Other		Total	
	No.	%	No.	%	No.	%	No.	%
Specialists	4	3,85	6	5,77	2	1,92	12	11,54
EGI	2	1,92	5	4,81	9	8,65	16	15,38
EGB	4	3,85	7	6,73	10	9,62	21	20,19
Residents 1 (EGI)	9	8,65	15	14,42	13	12,50	37	35,58
Residents 2 (EGI)	3	2,88	4	3,85	11	10,58	18	17,31
Total	22	21,15	37	35,58	45	43,27	104	100

Table 5 shows that the most frequent way of acquiring knowledge about the application of MNT in stomatological emergencies was knowledge acquired through courses, master's degrees, and specialties, i.e., other ways, represented by 45 professionals for 43,3 %. Postgraduate studies, with 37 professionals, followed by 35,9 %. In last place comes the undergraduate, with only 21,2 %. The author thinks that the subject of MNT is not very interesting to the students, who are not motivated by this content.

The author thinks that the subject of MNT is not of much interest to students, that they are not motivated by this content because the importance and veracity of these treatments are rarely given, and that little knowledge is imparted during the study. According to the experience accumulated by Dr. Díaz Medero, there should be courses on the subject in question, where the information can be extended in time to all healthcare units. Studies carried out by this doctor highlight that most knowledge was acquired through other channels, followed by postgraduate and undergraduate studies, with results similar to ours.⁽⁵¹⁾

Other research carried out by the author Potente López⁽⁵⁷⁾ states that knowledge of Natural and Traditional Medicine, specifically Acupuncture and Digitopuncture, was obtained at the postgraduate level, and it was the EGI of the Centro Habana municipality that stood out the most, results that do not coincide with those of this study.

Research carried out in Spain by Jorge Luis Molina del Pozo in his PhD thesis directed his study to verify the fulfillment of the methodologically established requirements for the application of acupuncture based on the post-graduate courses received and the oriented methodology for the points used in the clinic in the treatment of different pathologies, and his results are very low.⁽⁵⁸⁾

Occupation	Knowledge					
	Adequate		not Adequate		Total	
	No.	%	No.	%	No.	%
Specialists	7	6,73	5	4,81	12	11,54
EGI	13	12,50	3	2,88	16	15,38
EGB	15	14,42	6	5,77	21	20,19
Residents 1(EGI)	28	26,92	9	8,65	37	35,58
Residents 2(EGI)	12	11,54	6	5,77	18	17,31
Total	75	72,12	29	27,88	104	100

Table 6 shows the distribution of respondents and their knowledge of the main MNT techniques. Of the 104 professionals surveyed, 75 showed adequate knowledge, representing 72,1 %.

When analyzing the behavior of the techniques known and used by the professionals, residents 1 (first-year residents EGI), GBS, and EGI showed the best results. It should be noted that 100 % of the professionals surveyed knew at least one technique. These results demonstrate the importance of the specialty of EGI, which encompasses each of the specialties in a general and comprehensive manner, as its name indicates.

It should be noted that three of the EGI have inadequate knowledge because they only mentioned 1-2 MNT techniques, either by inclination or because of the problem they refer to the most, which is based on the fact that the stomatological clinics often do not have a homeopathy kit or the necessary implements for the application of techniques such as acupuncture and flower therapy; therefore, in their daily work, they forget some effective medicines. They say that the methods they apply the most are Apitherapy, Phytotherapy, and Digitopuncture, as this is what they have most within their reach; moreover, it is more feasible to indicate to patients and, of course, the latter have access to these therapies. Therefore, the subject is often known about but not applied, and the skill and interest in these natural treatments, which are nonetheless effective, is lost.

In the Cuban medical literature, there are innumerable works on the use of MNT in the treatment of various stomatological pathologies, which show that MNT techniques have a place in this specialty.^(50,54)

Occupation	Usage					
	Adequate		not Adequate		Total	
	No.	%	No.	%	No.	%
Specialists	8	7,69	4	3,85	12	11,54
EGI	9	8,65	7	6,73	16	15,38
EGB	11	10,58	10	9,62	21	20,19
Residents 1(EGI)	18	17,31	19	18,27	37	35,58
Residents 2(EGI)	14	13,46	4	3,85	18	17,31
Total	60	57,69	44	42,31	104	100

Table 7 shows that most respondents apply MNT, i.e., 60 professionals, representing 57,7 %. The majority of the professionals who adequately use these therapies are the residents (EGI), the EGB, and the EGI, and they state that the knowledge acquired in the specialty and continuing education courses allows them to carry out these treatments in stomatological emergencies. Therefore, according to my criteria as a professional in this area of health, it is necessary to increase teaching on the subject of Natural and Traditional Medicine for colleagues in our municipality.

In studies carried out by Dr. Potente Lopez, she showed that orthodontists show very little interest in NTM,⁽⁵⁷⁾ results that agree with those obtained in our research. These professionals focus on dental correction and do not attribute much credibility to NTM.

We find it very elementary that all the stomatologists in our municipality use at least some MNT technique. In her thesis, Dr. Díaz Medero describes that the therapy most used by stomatologists in the city of 10 de Octubre is Phytotherapy, followed by ozone Therapy, and it is the General Comprehensive Stomatologists, and the Residents of EGI use it the most, a result that coincides with our study.⁽⁵¹⁾

The research by Potente López⁽⁵⁷⁾ reports that EGI residents in the municipality of Havana Centre apply Acupuncture and Digitopuncture therapies in most cases.

Dr. A Ramos⁽⁵⁸⁾, in a study, shows that Acupuncture and Digitotopuncture are widely used worldwide as MNT therapies, suspending all kinds of analgesic drugs in very painful pathologies, and are considered very effective therapeutic procedures.

Table 8. Distribution of stomatology professionals according to basic knowledge of Natural and Traditional Medicine

Occupation	Knowledge					
	Adequate		not Adequate		Total	
	No.	%	No.	%	No.	%
Specialists	6	5,77	6	5,77	12	11,54
EGI	11	10,58	5	4,81	16	15,38
EGB	15	14,42	6	5,77	21	20,19
Residents 1 (EGI)	18	17,31	19	18,27	37	35,58
Residents 2 (EGI)	14	13,46	4	3,85	18	7,31
Total	64	61,54	40	38,46	104	100

Table 9 shows the distribution of respondents according to the basic knowledge of NTM in the treatment of stomatological emergencies, which was obtained through a 5-question questionnaire. The level of expertise in Natural and Traditional Medicine was adequate in 61,5 % of the respondents. However, there is a lack of motivation among the stomatologists, among other things, due to the lack of courses received in any of the specialties and the perceived lack of evidence of the main techniques of NTM.

The results found in this research do not coincide with those of Dr. Vilma Victoria Díaz Medero, who states in her thesis that most stomatologists surveyed in the municipality of 10 de October have little knowledge of Natural and Traditional Medicine.⁽⁵¹⁾

Of the EGI sampled, the majority (11) belong to those with adequate knowledge (10,9 %) acquired in their daily activity and professional development through their residency in the specialty.

According to Dr. Mohamed A. Ramos, studies have shown that knowledge of NTM techniques is irrelevant in orthodontics and prosthetics.⁽⁵⁸⁾ This result coincides with our research.

This researcher believes that courses on Natural and Traditional Medicine should be increased so that stomatologists feel motivated and can apply these therapies.

Table 9. Distribution of stomatology professionals according to final assessment of NTM knowledge

Occupation	Knowledge					
	Satisfactory		Unsatisfactory		Total	
	No.	%	No.	%	No.	%
Specialists	5	4,81	7	6,73	12	11,54
EGI	3	2,88	13	12,50	16	15,38
EGB	7	6,73	14	13,46	21	20,19
Residents 1 (EGI)	16	15,38	21	20,19	37	35,58
Residents 2 (EGI)	6	5,77	12	11,54	18	17,31
Total	37	35,57	67	64,42	104	100

About the final evaluation of the level of knowledge of the surveyed stomatologists, as can be seen in table 8, the knowledge of MNT among the stomatology professionals of the municipality of Arroyo Naranjo is generally unsatisfactory in 64,4 %, represented by 67 professionals; according to what is described in the majority of the specialties, residents 1 (first-year residents of EGI) have the highest percentages of satisfactory knowledge.

The results from our municipality coincide with those of Dr. Vilma Victoria Díaz Medero in her thesis, which also states that stomatologists are very interested in self-improvement but that there are not many courses

on this subject, which was the same criterion when the questionnaires were applied indistinctly.⁽⁵¹⁾ The author believes that we should continue working on the teaching preparation of our professionals in this branch of medicine, linking them and motivating them to improve their knowledge and skills.

Table 10. Use of the main Natural and Traditional Medicine techniques according to occupational category in dental emergencies

Occupation	Techniques							
	Propolis		Phytotherapy		Acupuncture		Digitopuncture	
	No.	%	No.	%	No.	%	No.	%
Specialists	7	58,33	6	50,00	2	16,67	3	25,00
EGL	15	93,75	13	81,25	7	43,75	11	68,75
EGB	16	76,19	19	90,48	5	23,81	6	28,57
Residents 1(EGL)	22	59,46	25	67,57	9	24,32	15	40,54
Residents 2(EGL)	12	66,67	14	77,78	6	33,33	8	44,44
Total	72	69,23	77	74,04	29	27,88	43	41,35

Table 10 shows the use of the main NTM techniques. Phytotherapy was the therapy most used by most stomatology professionals (74,0 %), followed by Propolis (69,2), with residents, Basic General Stomatologists, and Comprehensive General Stomatologists using it the most. The author's opinion on this aspect is that it is more viable and feasible for professionals to indicate these techniques, as they are within the reach of patients and are more widely known in the population due to their age, making it easy to apply them for the treatment of various oral pathologies in stomatological emergencies.

Some stomatologists also report not applying some techniques, such as acupuncture, because they do not have the necessary means, instruments, or medicines to treat different pathologies. Another aspect is that on many occasions, the homeopathic medicine cabinet is incomplete; some medicines are not within reach of many patients, as is the case with ozonized oil; in addition, on many occasions, their distribution and sale in pharmacies or other hospitals centers are complex, and the population cannot acquire many of these products, which are very effective and economical.

In her thesis, Dr. Vilma Victoria Díaz Medero stated that phytotherapy is the therapy most used by stomatologists in the municipality of 10 October, followed by ozone therapy, and it is the General Comprehensive Stomatologists who use it the most.⁽⁵¹⁾

In her thesis, Dr. Maydel Potente López states that EGL mainly applies Acupuncture and Digitopuncture therapies in Centro Habana's municipality.⁽⁵⁷⁾

Dr. Mohamed A Ramos, in studies carried out, shows that Acupuncture and Digitopuncture are widely used worldwide as MNT therapeutics, suspending all kinds of analgesic drugs in very painful pathologies, and are considered very effective therapeutic procedures.

CONCLUSIONS

In the sample of Stomatology professionals in the municipality of Arroyo Naranjo, the female sex predominated, and the 20-35 age group was the most frequent; the most representative sector was the first-year residents in the specialty of General Comprehensive Stomatology (GCS), and in terms of years of experience, the 1-10 year category.

The level of knowledge of the techniques of Natural and Traditional Medicine was adequate and in terms of acquiring knowledge on this subject, preparation and learning through other means of preparation, whether courses, master's degrees, or other variants, prevailed.

The evaluation of the stomatologists' level of knowledge was not satisfactory, fundamentally due to the professionals' lack of motivation and the insufficiency of courses and master's degrees that deal with this subject.

The most frequently applied techniques were Phytotherapy and Propolis, followed by acupuncture and acupuncture. The residents of the specialty of General Comprehensive Stomatology applied them the most in their work in stomatological emergencies.

RECOMMENDATIONS

- This subject should continue thoroughly studied with further analytical research in the municipality.
- Give courses in acupuncture and acupressure to broaden the knowledge of dental care professionals.
- To promote numerous subjects related to Natural and Traditional Medicine in the undergraduate and postgraduate curricula of Stomatologists.

- Create the necessary conditions in the emergency services of stomatology for applying acupuncture, homeopathy, and acupressure, and improve them where they are not optimal.
- To guarantee sufficient material resources for applying acupuncture in stomatology clinics and emergency services.
- The results of this research will be disseminated to dental professionals in the municipality through dissemination activities.

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The authors declare that there is no conflict of interest.

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