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# An herbal ABC book: A contribution to information available to children and adults

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# An herbal ABC book: A contribution to information available to children and adults

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## **Abstract**

From Neanderthal to New Age times, plant medicine has been shown to be used by people seeking relief from ailments. There is a lack of information available for children to learn about the simple herbal remedies used by their ancestors even though herbal remedies are commonly used in this country. These plant remedies are both culturally and medically significant. People use herbal medicine to a great extent without consulting medical professionals. Therefore, a research based herbal ABC book would be a significant addition to children's literature in this country, both as information for children and adults, and as a conversation starter in the medical practitioner's office.

An Herbal ABC Book: A Contribution to Information Available to Children and Adults  
Concerning Simple Herbs Commonly Used Medicinally in the United States

This Graduate Research Paper

Submitted to the

Department of Curriculum and Instruction

Division of School Library Media Studies

In Partial Fulfillment of the Requirement for the Degree

Master of Arts

University of Northern Iowa

by

Linda Jo Kirkland

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Titled: An Herbal ABC Book: A Contribution to Information Available to Children and Adults Concerning Simple Herbs Commonly Used Medicinally in the United States

has been approved as meeting the research paper requirements for the degree of Master of Arts.

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Curriculum and Instruction

## Abstract

From Neanderthal to New Age times, plant medicine has been shown to be used by people seeking relief from ailments. There is a lack of information available for children to learn about the simple herbal remedies used by their ancestors even though herbal remedies are commonly used in this country. These plant remedies are both culturally and medically significant. People use herbal medicine to a great extent without consulting medical professionals. Therefore, a research based herbal ABC book would be a significant addition to children's literature in this country, both as information for children and adults, and as a conversation starter in the medical practitioner's office.

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## Chapter 1

### Introduction

#### The Evolution of Modern Medicine

(as imagined and adapted by Jim Duke from Internet surf castings)

**8,000,000 years ago:** One chimp to another: “I have a tummy ache...” (*in chimpanzeze, rubbing his tummy*). Response: “Here, chimp, eat these bitter herbs!” (*in chimpanzeze*)

**5,000,000 years ago:** “Here, Hominid, eat these bitter herbs” (*in hominidese*).

**2,500,000 years ago:** “Here, Homo, eat these bitter herbs and leave some for the Leakeys to find!” (*in humanoid sign language*)

**2500 B.C.:** “Here, Man, eat these bitter herbs!” (*in Arabic, Coptic, Farsi, Hebrew, etc.*)

**A.D. 0:** “The savior is borne! Faith can heal. Eat these bitter herbs (if faith should fail!).”

**A.D. 1200:** “Those bitter herbs aren’t Christian. Say a prayer when you take those bitters!”

**A.D. 1850:** “That prayer is superstition. Here, drink this bitter potion!”

**A.D. 1900:** “That bitter potion is snake oil! Here, swallow this bitter pill!”

**A.D. 1950:** “That bitter pill is ineffective. Here, take this bitter antibiotic!”

**A.D. 2000:** “That bitter antibiotic is artificial, ineffective, and toxic; besides, all the microbes are resistant, and some even feed on it (even vancomycin). Here, eat these bitters. And pray they will help you (95

percent of Americans, but only 33 percent of psychologists are reported to pray)” (Duke, 1999, p.vi).

Dr. James Duke, in his witty way, illuminates the evolution of herbal medicine from the dawn of man through modern times. Along the way, herbal medicine has morphed from standard practice to amusing folklore appearing in various folktales to, most recently, innovative, back-to-basics healing.

Folklore - the traditional beliefs, myths, tales, and practices of a people, transmitted orally (The American Heritage College Dictionary, 2007, p. 538).

Folk medicine – traditional medicine as practiced by nonprofessional healers or embodied in local custom or lore, generally involving the use of natural and especially herbal remedies (The American Heritage College Dictionary, 2007, p. 538).

Folk tales continue to be so popular that the American popular culture has not only written them down, but major movie studios have made billions of dollars as a result of depicting these stories on the silver screen, both animated and live action (Petit, retrieved February 2, 2008). Folk dance is kept alive through active clubs devoted to specific genres such as square dancing, Native American dancing, and ballroom dancing. Folk music has been flourishing since long before the invention of vinyl allowed for recording of music, although its popularity ebbs and flows with time. Folk medicine has seen an incredible resurgence as people look to return to a more natural way of living and desire to have a more active part in their own health and well-being (Pela, 2003, p. 55).

### ***Folk Medicine Overview***

Most historians make little mention of folk medicine practices as part of medical history. They trace the beginnings of orthodox or conventional medicine to the practices

of official medicine, or medicine practiced by those with formal university training, neglecting to reflect that the beginning of all medicinal practice was man using that which he found in nature to heal his ailments and keep him healthy (Hatfield, 2004, p. xvii).

Folk medicine is a part of the history of both medicine and of people. The healing traditions included in the folk medicine of North America encompass those that long ago traveled here from Europe, Asia and Africa, as well as those that originated on the continent as Native American traditions. In ancient times, healing was handled either by a village healer or at home with methods known to every homemaker. Much of this healing used the plants that grew around villages or homes. Once upon a time, this knowledge was passed down through generations from healer to healer or simply from parent to child. The origins of many existing folk remedies are difficult to trace, as cultures mingled and exchanged information as years went by. The traditional knowledge that these forefathers brought were shared, borrowed, stolen and eventually blurred (Hatfield, 2004, p. xix). This knowledge then was passed down through the generations to the local healer, be it a shaman, curandero, granny healer, or witch doctor. But the everyday aches and pains of family members and neighbors were still tended to by the people themselves.

***A Brief Chronology of Herbals and Herbal Healing Construed from Green Pharmacy: The History and Evolution of Western Herbal Medicine (Griggs, 1991).***

A grave of a Neanderthal man of **60,000 years ago** is found with medicinal herb remnants surrounding the body. Seven of these eight plants are still used medicinally today. In almost all primitive tribes both anthropologically and living in remote areas

today, a medicine-man or woman held the medical knowledge in secrecy, to be passed down to a successor when his/her death was near. Everyday ailments, however, were remedied with plants whose effects were common knowledge throughout the tribe.

An herbal material medica was slowly built by each tribe or civilization over the years based on local plants. Eventually, this knowledge surfaced as part of various medieval herbals (Griggs, 1991, p. 5-10)

In **2800 B.C.** the *Pen Ts'ao* of Chinese herbalist Shen Nung lists 366 plant drugs. By **1500 B.C.** ancient temple carvings showed medicinal plants being brought back to Egypt from Syria. The first known herbal, **dated from the fourth century B.C.**, was written when oral tradition could no longer be relied upon. From ancient Greece, it was called the *Rhizotomika* of Diocles of Carystius, who was a pupil of Aristotle. Hippocrates (**468-377 B.C.**) emphasized a balanced and holistic approach to healing, such as the medical traditions in Ancient China, India and Egypt (Griggs, p. 14, 1991; Hoffman, 2003, p. 6).

Crataeus, the personal physician of Mithridates VI Eupator, King of Pontus, wrote an herbal in the **first century B.C.** and included illustrations of the healing plants. Also in the **first century B.C.** Dioscorides, an army surgeon from Asia Minor, wrote an herbal bringing together all the current medical information on plants and other drugs available and putting them in one work, called *Peri hulas iatrikes*, better known by the Latin name *De Materia Medica*. This also included illustrations and descriptions of each plant so almost anyone could recognize them even without botanical training.

Galen (**A.D. 131-200**), a successful physician schooled in medicine in Alexandria and personal physician to the Emperor Marcus Aurelius, used the Hippocratic teaching of

four humours to create a rigid system of medicine, which was used faithfully in European medical practices for the next 150 years. He wrote *Peri krateos kai dunameos ton naplon pharmakon*, an herbal material medica that classified plants according to their impact on the four humours. Thus began a great divide between professional physicians who ascribed to Galen's teachings, and the traditional healers, whose plant remedies worked gently and thoroughly, but not always quickly. Purging and blood-letting became popular with professional physicians, to quickly achieve change and affect bodily processes.

Traditional knowledge of plants in Britain was common before the Roman invasion, and after the last of the Roman culture died out, Angles, Saxons and Danes overran the country. By the **sixth century A.D.**, a school of physicians developed at Myddfai in Wales with a rational rather than a priestly approach to medicine. Then Christianity arrived in England, with traditions of monks as the keepers of medicinal knowledge. These monks studied and kept medicinal knowledge alive throughout the Dark Ages, as their duty was to care for the sick as skillfully as possible. Until the eleventh and twelfth centuries, monasteries were the only training places for physicians.

King Alfred (**870-899**) of England encouraged medical texts to be translated into English such as the fifth century *Herbarium* by Apuleius Platonicus during his reign. He imported scholars to his country to help establish the schools and monasteries where these translations occurred. These were used by mistresses of households and leeches, which was the term for a doctor at that time. In the early tenth century the *Leech Book of Bald* was written, and included the best of Greek and Roman medical literature.

The holistic approach of the Myddfai physicians in Wales was passed down through a particularly skilled doctoring family for over a thousand years, from the **eighth**

until the **eighteenth century**. Their approach to medicine was similar to the plain country style of the people, using infusions and poultices of single, simple herbs found in abundance in the countryside.

Avicenna (**980-1037**), a highly respected Arab practitioner from Baghdad, wrote the *As-Qanum*, or *Canon of Medicine*. He had studied the works of Dioscorides, Galen and Hippocrates and with his mental acuity and passion for order, became thought of as the supreme authority in medical knowledge. The medieval physicians who were trained at universities subscribing to his theories were known as mouthing-doctors, as opposed to surgeons, who were referred to as wound-doctors. Arabs contributed greatly to the field of material medica because they were so skilled at making and compounding medicines, which were then sold in apothecaries (Griggs, 1991, p. 24-25). In the small southern Italian town of Salerno, also in the **tenth century**, a book of preventive medicine and hygiene was written in the tradition of Hippocrates called *Regimen Sanitatis* (Griggs, 1991, p. 22-23).

Nicolaus of Byzantium, in the **fourteenth century** compiled the *Antidotarium Magnum*, which was full of directions for compounding elaborate spiced concoctions that soon became standardized throughout Europe. Animal and mineral substances were often included in compounds in Medieval Europe, drawing from European folk-medicine, as well as Egyptian, Babylonian and Arab practices. These elaborate medicines were very profitable for the apothecaries, as opposed to the simple plant remedies that grew wild and were available to everyone. The physicians profited too, since these intricate formulas were much too complex for the mere layman to handle (Griggs, 1991, p. 27).

The Black Death that fell upon Europe in **1348** leveled the playing field between highly-trained physicians and uneducated peasant healers. Neither was able to competently treat or cure this disease. Herbal books were steadily circulated at this time, mainly in wealthy households where the lady of the manor would use them to guide her in her household duty of providing first aid and simple doctoring for her family and the village poor (Griggs, 1991, p. 26-31).

King Henry VIII (**1491-1547**) of England was keenly interested in medicine. Commonly, the housewives of the kingdom made medicines with herbs as part of their necessary chores. In **1512**, Parliament passed the first of several acts to regulate the practice of medicine. In **1518**, the College of Physicians was set up as a formal regulatory body. Because of the bickering between the Physicians, Surgeons, Surgeon-Barbers, and apothecaries a law was enacted to legalize a new class of practitioner. This act is known as the Quack's Charter by doctors and as the Herbalist's Charter by modern herbalists. Physicians during this time were highly trained in classical studies and theory, with a degree from Oxford or Cambridge taking up to fourteen years to attain. It was quite irritating to them that amateur doctors armed with herbals of simple remedies could call themselves doctors (Griggs, 1991, Chapter 5).

Though many libraries possessed Latin herbals, the first English one, the *Grete Herbal*, came out in **1526**. In the early sixteenth century, a French physician, John Ruellius produced a three volume reference work called *De natura stirpium*, based on the texts of Dioscorides. But it became obvious that many plants existed that Dioscorides had never seen, and so the writing of a complete herbal was a daunting, if not impossible, task to undertake. The *Vertuose Boke of Distyllacion* was published in **1527** in Germany by

Hieronymus Brunschwig. This was a manual of instructions about distilling water from herbs, insects, and bits of animals for medicinal use. As a result, by the end of the century, every house that could afford one had a still room where housewives could distill their own curing waters. Conrad Gesner produced *The Treasure of Euonymus* in England in **1559**. He theorized that the use of chemistry in medicine was respectable and could be traced back to the Greeks. This meant using minerals mixed with herbs and distilling these poisons to a harmless but medically effective state.

In **1597** *Herbal or General Historie of Plantes* was published in England by Master-Surgeon John Gerard. Most physicians in the sixteenth and seventeenth centuries had no interest in investigating the actions of simple plants for themselves, and thus relied on the compounds produced by apothecaries.

The **seventeenth century** saw the average housewife using a distillery to make perfumes, medicines and lotions. She also was expected to cook, brew, weave and preserve, since the nearest apothecary may have been a day's ride away. Women in the seventeenth century treated their healing remedy recipes like their cookery recipes. Written down on scraps of papers kept in a box, traded with friends, these, along with a basic herbal were standard items in a household. Some women took this role as healer very seriously and thus became the medical consultant for the community when an illness struck. The most popular herbal by far was Gerard's. Domestic books became all the rage, and Gervase Markham's *The English House-wife* was published and quite successful in 1615 (Griggs, 1991, Chapter 8; Swerdlow, 2000, p. 64-65).



The College of Physicians felt very possessive about their secrets of medicine, so often their professional works were published in Latin, a language in which the lay person was rarely fluent. The *London Pharmacopoeia* is an example of this.

Nicholas Culpeper (**1616-1654**) followed his Cambridge education by setting up an apothecary in a decaying slum in London. While there, he translated the Latin *London Pharmacopoeia* into English as the *Physicall Directory*. He also criticized the work for not using the English names for plants in an attempt to keep the information away from common folk. Two years later, he produced the legendary work *English Physician* which contained methods and practices for man to use when he is sick and used only plants that grew in England, since they were most appropriate for English bodies. This body of work has forty-one editions listed in the British Library and a facsimile edition was published as recently as 1979 (Griggs, 1991, Chapter 8; Culpeper, 1990 reprint from 1814 edition).

The settlers in New England brought their herbals and even some seeds and plants with them from England. They immediately noticed the robust health of the native peoples on this new continent, and observed that their material medica was almost entirely herbal. The Indians used these plants singly and simply in decoctions, infusions, poultices or ointments. The arrogance of the few English physicians who traveled to New England disallowed any real exchanging of medical knowledge with the natives whom they thought were savages and irrational with their healing ceremonies and their view that nature, mind, body and spirit were inseparable. Those in the large settlements had very limited contact with Indians, but the pioneers who lived on the outskirts learned from the Indians about the plants that grew around them, and housewives eagerly added these remedies to their collections. In **1663** John Josselyn came to the New World with

the intention of discovering rarities in natural and physical things. After years of observing the Indian use of herbs, he published *New Englands Rarities Discovered* (Griggs 1991, Chapter 9).

The **seventeenth century** in England was notorious for bad health. Doctors' reputations were at an all time low as treatments were quite unpleasant and disease was rampant. The fees they charged, however, were still high. Apothecaries made high profits from selling expensive compounds instead of simple herbal remedies, and also gave out plenty of medical advice. The Plague hit, and confidence in doctors became almost zero. In these circumstances, charlatans and quacks flourished, as well as serious forms of what we now call alternative medicine.

The **sixteenth, seventeenth and eighteenth** centuries saw a very lucrative and flourishing import export business in plant-drugs. Exotic cures were all the rage, though folk-medicine traditions were still vigorous all over Europe. The professional looked with scorn on these homegrown remedies.

In **1772** the first American herbal appeared. It was actually a smaller, vegetable section of a larger *materia medica* written by Dr. Samuel Stearns of Massachusetts. In the late **eighteenth century** America opened its first regular medical school in Philadelphia. People mostly sought treatment from their apothecaries, of which there were plenty. These apothecaries sold mostly imported medicines, but later would use English containers and fill them with American medicine.

William Withering (**1741-1799**) published *A Botanical Arrangement of all the Vegetables Naturally Growing in Great Britain with Descriptions of the Genera and Species according to Linnaeus* in **1776**. A botanic work rather than an herbal, this tome is

noted for its brevity of comments on medicinal values of plants, although he wrote enthusiastically about foxglove and its possibilities. In **1785** he published *Account of Foxglove*. A diuretic, emetic, and sedative, this plant seemed to help the symptoms of heart disease, though dosage was a problem, and many died (Griggs, 1991, Chapter 13).

John Wesley (**1703-1791**) of England, the founder of Methodism, wrote *Primitive Physic or An Easy and Natural Way of Curing Most Diseases* in **1747**. Dr. William Buchan from Scotland published *Domestic Medicine* in **1769**. Both of these were meant for the common people to use in their personal healing practices.

The American War for Independence showcased to colonists the inconvenience of relying on imported drugs. The Napoleonic Wars in Europe brought this fact home overseas as well, and also affected American sources of medicine. Dr. Johann David Schopf stayed in America after serving with German troops for the British during the Revolutionary War to embark on a plant hunting tour of America. He wrote the first *Materia Medica Americana* cataloging over 400 native medicinal plants in **1783** (Griggs, 1991, p. 152).

Samuel Thomson (**1769-1843**) of New Hampshire saw the decline of an already minimal use of roots and herbs in medicine, as the heroic practices of blood-letting and purging took hold. He eventually patented a *System of Practice* that included four separate *Courses of Medicine* and called it *Thomson's Improved System of Botanic Practice of Medicine* (**1822**). His idea was to appoint an agent in each city to promote his system, and sell *Family Rights* for use of it for twenty dollars, which would also allow the purchaser to become a member of the *Friendly Botanic Society*. This was very appealing

to the common people, but Thomson wanted to appeal to the educated, and sophisticated in society, too. This did not occur (Griggs, 1992, Chapter 15).

Peter Smith published *The Indian Doctor's Dispensatory* in **1813**. In **1814** Samuel Henry produced the *New and Complete American Medical Family Herbal* in New York. These were very popular with the westward pioneers. In **1817** William Barton published *Vegetable Materia Medica of the United States*. In **1832** Dr. William Woodville wrote a five-volume book called *Medical Botany*, which was the last proper herbal to be written in England for the next one hundred and fifty years.

Dr. Albert Isaiah Coffin (**1791-1866**) from America studied heroic medicine but was converted to botanical remedies when he was cured of a devastating illness by a Native American woman selling hand-made baskets. Suffering from tuberculosis, Coffin was lying in his bed as a boy when the Seneca Indian woman stopped at his home to ask for a drink of cider. She saw the sickly child and offered to cure him for a gallon of cider. His mother agreed, and the woman reappeared with an apronful of herbs. He recovered, and immediately began applying his considerable medical talents to natural healing practices (Griggs, 1991, p. 198-204). He traveled to Europe and ended up in England, touting herbal remedies as the best method of treatment for people and publishing the very popular *Coffin's Botanical Journal* monthly from **1847 to 1859**. It eventually boasted a readership of 10,000 and its success showed herbal medicine was becoming mainstream once again. The conventional practitioners took aim at him through their professional journal, *The Lancet* (Griggs, 1991, Chapter 18).

The Industrial Revolution made its way into the medical world, and materia medicas soon were filled with organic compounds artificially prepared. In **1847** in

Philadelphia, the American Medical Association was established. The regular medical profession was alarmed by the repeals of legislation restricting medical practice to those officially licensed. This came about as a result of the influx of Thomsonian practice and its use of purgatives and emetics, along with Eclectic practices focusing on healing with any beneficial substance one chooses, and Homeopathy with its philosophy of like curing like when given in minute, diluted amounts. Pasteur's discovery of the role of microorganisms in fermentation and spoilage, as well as his development of vaccines to isolate and weaken germs in **1881** revolutionized medicine.

In **1910** the Flexner Report revealed atrocious conditions in many American medical schools to the public. This report, in effect, closed down medical schools of sect beliefs such as eclecticism and homeopathy, and rendered botany unnecessary to pharmaceutical studies (Griggs, p. 250). In **1928** Alexander Fleming discovered penicillin, and its use during World War II saved countless soldiers from succumbing to venereal disease.

In **1931** in London, Hilda Lyle published *A Modern Herbal*, based on the encyclopedic knowledge of plants gathered and reported in pamphlets by Mary Grieve. In her introduction, Lyle laments the lack of new herbals and describes the need of an herbal that includes both the traditional lore about the plants and their properties, as well as the modern use of standardized extracts and tinctures (Lyle, 1931, p. xiii)

In **1976** a scientific committee in England came out with a compilation called the *British Herbal Pharmacopoeia*, in response to new Ministry of Health requirements that herbal remedies may be considered legal if they appeared in a standard reference book with monographs and a history of usage without ill-effect.

### ***Old Ways and New***

For a time, traditional practices and official medicine existed together. With the advent of the vaccination and the discovery of penicillin, however, official medicine exploded with new laboratory-made concoctions that were powerful and effective. These synthetic medicines, often based on plant constituents, were considered so much better than the gentler, slower results achieved through traditional remedies that conventional practitioners ceased using the whole plants altogether. (Griggs, 1991, p. 261-263, p. 247-251). Even while this new conventional medicine and its proponents attempted to distance itself from the simple remedies of the common people, the people themselves kept this traditional knowledge and continued to quietly use the remedies they trusted and knew (Gladstar, 1993, p. 20-21). As time went on, however, medicine became largely a realm for the official doctors, and the knowledge of the traditional ways was mostly lost.

### ***Old Ways Become New***

Today, the remnant of folk healing traditions has come to be known as alternative medicine, or Complementary and Alternative Medicine (CAM) and alternative medicine has become mainstream (Gevitz, 1988, p. viii). Many magazine and newspapers offer articles about various alternative therapies including herbal remedies, meditation, yoga, aromatherapy, homeopathy, massage, and acupuncture. Reference books are produced by reliable publishers and appear in public and academic library collections. Research is being done, albeit sparsely, on the effectiveness of some of the more widely known traditional remedies. Unfortunately, the scientific methods used to research effectiveness of plants cannot, by definition, recreate the environment where these methods have been shown to be successful through anecdotal evidence (Pela, 2003, p. 62). Scientists

inevitably remove the constituent of the plant thought to be active in healing, standardize it, isolate it, and test it on individuals while attempting to control other variables.

Traditionally, these plants are used in their whole form, either decocted into tea form or macerated into an alcohol or glycerin based extract. Those who use these herbal remedies successfully state that the effectiveness of the active constituent is often based on the other constituents in the plant. The whole plant contains properties that may prevent the active constituent from becoming toxic, or may boost the healing that takes place (Balch, 2002, p. 8).

People concerned with their health are becoming more educated about various options of treatment and prevention of disease. Whether motivated by cost savings, or the desire to feel more in control of their own health, many are turning to natural remedies to aid in their seeking of health and wellness. Some people are weary of being treated as a disease and not a whole person. The idea of treating the whole person, or holistic medicine, is another attractive feature of herbal medicine (Navarra, 2004, p. xviii). Herbal practitioners are overwhelmingly holistic practitioners. They see the connection of body, mind and spirit and to the natural world, as did the Native American culture during colonial times. Doctors are more often accepting, and recommend natural therapies for their patients as alternatives or complements to the pharmaceuticals that are routinely prescribed (Associated Press, 2005, <http://www.msnbc.com/id/8048627/print/1/displaymode/1098/>). People are intrigued by these new age therapies. They may resonate on some deep, ancestral level. Most people in this country are descendents of immigrants. The folklore of their families has been largely lost as past generations tried so hard to become Americanized and modernized. Even Native Americans have lost much of their

stories as time has marched forward. They are reaching solidly for more natural, self-empowering solutions to their health issues, and a connection to the larger world. These traditional healing ways, though not openly used for awhile, never completely went away. The gap between grandparents, or great-grandparents and this generation is filled, albeit sparsely, by information written down by herbalists and maintained through the years.

### ***The Significance of Relearning Our Traditions***

The folk tradition of healing passed down from our ancestors has become a new age medicine of our cutting edge future. From home remedy to alternative medicine- the name has changed, but the idea is the same; using natural, plant based products to assist in health and wellness. People are looking for simple, natural ways to cope with symptoms of everyday disease and brought on by daily life. Newspapers and magazines continue to report on the use and effectiveness of alternative medicine in this country. According to the Mayo Foundation for Medical Education and Research, more than half of Americans are using some sort of alternative therapy; most often herb supplements (Mayo Clinic Staff, 2007, <http://www.mayoclinic.com/health/alternative-medicine/PN00001>). Even so, alternative medicines have yet to find their way into informational literature for elementary or even high school students. More and more medical schools are requiring classes in what they term Complementary and Alternative Medicine, or CAM for their students as they realize that patients are using them with or without a physician's consent or approval (Associated Press, 2005, <http://www.msnbc.com/id/8048627/print/1/displaymode/1098/>).



The effectiveness of herbal remedies continues to be disputed by some medical researchers, yet all indications are that they are not going away this time. A lung cancer patient who has been through six separate and physically devastating chemo-therapy regimens may, appropriately, question the effectiveness of these prescribed and medically accepted pharmaceuticals, even while paying thousands of dollars for each dose; especially when the end result is continued growth of cancer cells, and continued expensive attempts at conventional therapies. Yet these therapies are approved and sanctioned by our medical experts. It may not be appropriate, then, for these experts to dismiss herbal therapies as ineffective or contra-indicated for a condition.

There is a gap between the computer age and the ancestral folklore of herbal healing. This country is continually passing legislation and forming committees to study how to better educate children. Technology undergoes changes and arguably, improves swiftly with no apologies to those left behind. The schools try valiantly to keep up with trends, popular learning theories and political agendas. In the continued efforts to keep up with changes, curriculums may have left behind some important educational opportunities for our children. The parents of these children use herbal remedies or some other form of complementary and/or alternative medicine frequently (Navarra, 2004, p. xix). According to a study done for the National Center for Complementary and Alternative Medicine at the National Institutes of Health, over one half of people in the United States use complementary and alternative medicine (Mayo Clinic Staff, 2007, <http://www.mayoclinic.com/health/alternative-medicine/PN00001>). These remedies have once again gained popularity in common culture. Medical schools are including CAM classes in their curriculum (Associated Press, 2005). People are getting fed up with rising

health care costs and the feelings of helplessness accompanied by many conventional treatments. People find information on various alternative health modalities from a variety of popular media sources. There are periodicals devoted entirely to the subject of natural health care and/or CAM's, such as *Self*, *Natural Health*, *Prevention* and *Body & Soul*.

### ***Simple and Natural***

Life seems, in many ways, not to be simple. People awaken, rush to get themselves and their loved ones ready for the day, catch buses and get in cars to go to jobs and school where life depends on performance and achievement, then back in to the modes of transportation to rush off to sports events, club and social activities, grab a bite to eat somewhere, and rush home to do the work necessary to get ready for the next day, where one repeats the process. It's no wonder that people are looking for a simpler, more natural way of life, or at least to infuse some naturalness into their lives. The simple, commonsense approach of herbal medicine speaks to this desire of getting back to nature and feeling more in control of one's life. It responds to the desire of people to be treated as a physical, spiritual and thoughtful being, not just a symptom. People recognize the connection between the physical, emotional, mental and spiritual aspects of their beings, and are seeking more holistic modes of healing and wellness.

Herbal remedies, with their connection to nature and their multi-layered healing aspects, are becoming more popular and offering people an opportunity to not only heal themselves, but to heal the earth as well. Plants need good soil, sunshine and clean water to thrive, as do humans. Plants learn to adapt to their surroundings, and thrive where they are planted. Plants contain the knowledge of their ancestors, which allows them to secure

a place in the future. Plants contain a myriad of components that protect them and help them survive in this ever changing world. These same components are available for people to use in their own healing. All that is needed is the knowledge of the plants' medicinal action and the desire to make holistic health a priority.

### ***A Proposal***

The knowledge of traditional herbal remedies is important both from an historical perspective and as a current, legitimate form of complementary and alternative therapy. People no longer take their children out into the woods and fields and point out the plants that help with every day ailments. Even if people had the knowledge, many do not have the time. Adults have the advantage of learning a little about herbal remedies from their popular magazines. Many adults, however, would benefit from a lifelong awareness of these simple medicines. The knowledge of simple plant remedies, though buried and hidden for so long, is coming back. This knowledge can become commonplace once again. Our children can grow up learning about simple herbal remedies from plants that grow around them, or are readily available in health food stores. Children learn by doing, and they learn by watching, and they learn by reading. An herbal remedy ABC book would be a way for children to learn not only the alphabet, but about some simple, traditional healing plants that grow around them and might help them feel better one day. At least, children can be made aware that there are alternatives to conventional medicine. Perhaps parents will benefit as well.

### ***Problem Statement***

There is a lack of information available for children to learn about the simple herbal remedies used by their ancestors even though herbal remedies are commonly used in this country.

### ***Assumptions and Limitations***

The assumption made for this research project is that children, as well as their parents, would be interested in reading a simple book about herbal remedies. The complementary and alternative medicines will be limited to herbs, other plants, and the substances used to make simple herbal medicines and will not include other alternative methods such as meditation, yoga, aromatherapy, homeopathy, massage, or acupuncture. This project is limited to the common plants that grow or are used abundantly in this country, and also by the traditional medicinal uses that can be found in published herbals.

### ***Definitions***

alternative medicine – any of various systems of healing or treating disease (such as chiropractic, homeopathy, faith healing) not included in the traditional medical curricula taught in the U.S. and Britain (Merriam-Webster’s Collegiate Dictionary, Eleventh Edition [M.-W. C.D.11], 2007, p. 37).

apothecary – one who prepares and sells drugs and compounds for medicinal purposes (M.-W.C.D.11, 2007, p. 59).

CAM - complementary and alternative medicine (M.-W.C.D.11, 2007, p. 177).

complementary medicine – any of the practices (as acupuncture) of alternative medicine accepted and utilized by mainstream medical practitioners (M.-W.C.D.11, 2007, p. 254).

decoct – to extract the flavor of by boiling (M.-W.C.D.11, 2007, p. 323).

decoction – an extract obtained by boiling (M.-W.C.D.11, 2007, p. 323).

herbal – a book about plants especially with reference to their medicinal properties (M.-W.C.D.11, 2007, p. 581).

homeopathy – a system of medical practice that treats a disease especially by the administration of minute doses of a remedy that would in a healthy person produce symptoms similar to those of the disease (M.-W.C.D.11, 2007, p. 594).

humour – a normal functioning bodily semi-fluid or fluid (as the blood or lymph) (M.-W.C.D.11, 2007, p. 605-606).

infuse – to steep in liquid (as water) without boiling so as to extract the soluble constituents or principles (M.-W.C.D.11, 2007, p. 642).

infusion – a product obtained by infusing <herbal ~s> (M.-W.C.D.11, 2007, p. 642).

macerate – to cause to become soft or separated into constituent elements by or as if by steeping in fluid (M.-W.C.D.11, 2007, p. 744).

materia medica – substances used in the composition of medical remedies (M.-W.C.D.11, 2007, p. 765).

pharmacopoeia – a book describing drugs, chemicals and medicinal preparations (M.-W.C.D.11, 2007, p. 928).

poultice – a soft usually heated and sometimes medicated mass spread on cloth and applied to sores or other lesions (M.-W.C.D.11, 2007, p. 972).

simple – a) a medicinal plant. b) a vegetable drug having only one ingredient (M.-W.C.D.11, 2007, p. 1162).

### *Significance*

There is a need for more education about herbal remedies in the United States. These plant remedies are both culturally and medically significant. People use herbal medicine to a great extent without consulting medical professionals. Therefore, a research based herbal ABC book would be a significant addition to the children's literature in this country. Children will have a little background as they grow up in a culture of significant complementary and alternative medicine use.

## Chapter 2

### Review of Literature

Research has been conducted to determine the extent of the use of herbs and the demographics of users. Much of the research is based on data from the National Health Interview Survey (NHIS), a survey of general health practices conducted annually since 1957. Studies indicate that complementary and alternative medicine, and herbal remedies in particular, are commonly used in this country. Health care practitioners must be learned in these modalities to better serve and protect their patients. Researchers must continue to update and standardize methods of validating herbal efficacy, and acknowledge that information in historical texts have significance in helping find cures and symptom relief from botanical medicines. Further, folk remedies are still significant as a means of self care and cultural history to many people in this country as well as having valuable information for researchers and doctors to use. Reliable information about common herbal remedies should be available to all people. Research related to this premise fall into three categories: use of herbs, research efforts to validate the use of herbs and the value of herbal alternatives.

#### *Herbs are Commonly Used*

The common use in this country of complementary and alternative medicine (CAM) has been documented by Eisenberg, Davis, Ettner, Appel, Wilkey, Rompay, and Kessler in their 1998 follow-up to the data gathered from the National Health Interview Survey (NHIS) in 1990. The NHIS is a nationally representative household survey of the noninstitutionalized civilian population. This public use survey is considered to be the most comprehensive source of population data on health in the U.S. and allows

researchers to calculate national representative estimates of key health indicators. This survey consisted of face-to-face interviews with one member of each household studied, and the interviewer used a hand-held computer to code conditional responses and perform real-time consistency checks. The purpose of the Eisenberg survey was to document trends in alternative medicine use in the United States from 1990 to 1997, in light of the results of a prior survey in 1990 which clearly documented high prevalence in alternative medicine use. Estimated costs of therapies and patient disclosure of alternative therapy use to physicians was also measured. Telephone surveys were conducted in 1991 to 1539 adults and in 1997 to 2055 adults (1998, p. 1569-1570). Survey methods were approved by the Beth Israel Deaconess Institutional Review Board in Boston, Massachusetts. The sociodemographic characteristics of the survey sample were similar to the national population distributions published by the US Bureau of Census. Some of the patterns that Eisenberg et al. found included increases in use by the general population from 1990 to 1997 (p. 1571). Alternative therapy use was more common among women than men, among people aged 35 to 49 than among other ages, higher by those with some college education than those with less and more common among those with annual incomes over \$50,000 than those with lower incomes. The percentage of people using alternative therapies jumped from 33.8% in 1990 to 42.1% in 1997. The largest increases were in herbal medicine usage, massage, megavitamins, self-help groups, folk remedies, energy healing and homeopathy (p. 1572). The estimated expenditure of Americans on alternative therapy practitioners in 1990 was \$14.6 billion and increased to \$21.2 billion by 1997 (p. 1573). Despite the dramatic increase in usage and expenditures by American on alternative therapies, the rate of patient disclosure to physicians remains



low. Eisenberg, et al. suggested that this current status quo of *don't ask, don't tell* must be abandoned and strategies for dialogue in this area must be developed so that physicians are better able to treat patients and avoid possible dangerous interactions between drugs and herbs. They concluded that a more proactive posture must be adopted by federal agencies, academic institutions, private corporations and foundations concerning research, educational curricula, and referral guidelines for complementary and alternative therapies (p. 1575).

Saydah and Eberhardt (2006) conducted a study to determine the extent of use of complementary and alternative medicine (CAM) among adults diagnosed with chronic diseases. The data from the 2002 National Health Interview Survey (NHIS) were used by the authors to compare the use of CAM by people with common chronic disease to use by those who did not report having a chronic illness. The interviews were conducted in person, and the response rate was 74.3%. This survey included a series of questions specifically related to CAM use as a supplement to the survey at large. If a respondent answered affirmatively to the query as to whether they have ever used CAM, then the interviewers continued with the supplemental questions. For purposes of this survey CAM is divided into four categories: (1) biologically based practices such as herb use, diets, vitamins; (2) complete systems of theory and practice such as acupuncture or Ayurveda; (3) mind-body medicine such as meditation and guided imagery; and (4) manipulative practices such as chiropractic or massage (2006, p. 806).

The results of this study showed that adults with chronic disease were more likely to report having used CAM than those reporting no chronic disease and that the use of biologically based CAMs was most frequently reported followed by mind-body and

manipulative, then complete systems (2006, p. 809). The authors' findings indicated that CAM use in this country, particularly biologically based therapies, was common and more likely to be used by those with chronic illness. A reported low level of communication with healthcare providers about this use was seen as a notable factor.

Kennedy (2005) also investigated the level of use of herbal and dietary supplements in the United States in his study. The researcher was particularly interested in analyzing the data by gender, national origin, age, region of residence, education level, and income level. Health status and usage were also looked at. The data from the 2002 National Health Interview Survey (NHIS) of households in the United States were used in this study. Kennedy performed a secondary analysis of the complementary and alternative (CAM) supplement to this survey (2005, p. 1847).

Thirty-one thousand forty-four adults representing a cross-section of the national civilian, uninstitutionalized population were surveyed. Of these, 632 were omitted due to incomplete survey information. A total of 5,787 adults reported using natural herbs during the past 12 months when this study was performed. This extrapolates to ~38.2 million adults in the United States or about 18.9% of the population (2005, p. 1847).

The first part of Kennedy's study showed the numbers of individuals using each of 35 herb or nutritional supplements. It also showed whether the respondent used one, two three, four, or more than four of the listed supplements. The top four herbs were echinacea, ginseng, ginkgo and garlic supplements. About 48% of those surveyed used 2 or more of the herbs listed (2005, p. 1850).

A second part of the study addressed the sociodemographic and socioeconomic factors associated with herb and supplemental use. Statistically, women were more likely

to use herbs than men, middle-aged people more likely than other ages, with older adults being least likely to use herbs. Racially, multiple race, Asian, American Indian, Alaskan native and white respondents had relatively high use rates, and blacks were slightly less likely to use herbs. Hispanics were less likely to use them than non Hispanics.

Geographically the West and Northeast saw a high use compared to the South. The Midwest averaged a little less than 18% usage. Herb use was positively correlated with level of education and level of income (2005, p. 1851).

The third analysis of the data showed an association between herb use and good health and positive health behaviors. Respondents were asked if they had seen an herbal practitioner in the past 12 months, and if they had seen and/or informed a conventional medical professional about their herb use. While most users considered herb use to be important or somewhat important (57.5%) only about 5.5 % of all respondents consulted a CAM provider, and only about 33.4% of the total informed a conventional medical provider about their herb use (2005, p. 1852).

Finally, the study addressed whether or not people used herbs to treat specific conditions, and what conditions were treated. It also showed the degree to which the person felt they were helped by the herb, and why they used herbal treatment. Extrapolated results showed that ~21.4 million adults use herbal or natural products to treat one or more than one specific medical condition. The two most common conditions treated were head and chest colds and stomach or intestinal illness; 36.6% said that herbs helped a great deal and 36.5% said they provided at least some help (2005, p. 1853). From these statistics Kennedy concluded that greater communication between physicians and patients about herbs and natural products should be a priority in this country.

Also in 2005, Klein, Sesselberg, Gray, Yussman and West explored teenage views regarding complementary and alternative medicine. The purpose of this study was to explore adolescents' knowledge of and beliefs about complementary and alternative medicines including herbs, dietary supplements, and over-the-counter medications (2005, p. 409.e1). Eighty-one adolescents ranging in age from 14 to 24 from Monroe County, New York, were divided into 18 focus groups. A trained moderator facilitated the groups, a research assistant took notes, and all groups were audio taped and the tapes were transcribed. Groups were separated into older and younger groups and by gender. Subjects included those from urban and suburban environments, and were of white, black, or Hispanic ethnicity. Half the participants were female, and three different chronic illness groups were represented and two groups had identified CAM users (p. 409.e1-409.e2).

The discussions resulted in some interesting findings. Many teens were unfamiliar with the term *alternative medicine*. However, most were familiar with *herbal medicine*, *herbal remedies*, and *nutritional supplements*. Even those participants who were patients of alternative medicine providers were unclear about the term *alternative medicine*. Generally, adolescents who had experience with herbs and supplements found them to be effective, and those who did not use them tended to have negative opinions about them. Although participants generally believed that it was important to tell their health care providers about CAM use, no clinician had asked them about it, except those with eating disorders, and then they were only asked about weight loss supplement use. Some of the adolescents stated that they would not tell their physician about CAM use if

the teens believed that the doctors would say they should not be taking them (2005, p. 409.e3).

Klein et al. concluded that knowledge and beliefs about CAM, especially home remedies, varied by ethnicity. Adolescents with chronic illnesses were more likely to be familiar with CAM therapies. An important issue noted was the lack of communication between health care providers and adolescents concerning CAM use. The attitude of the adolescents was that health care providers were not educated in or interested in CAM use, and they would be reluctant to tell the provider about their CAM use (2005, p. 409.e5-409.e6).

Ambrose and Samuels (2004) contributed to the studies on herbal use by investigating the extent to which college students reported use and on attitudes of health care practitioners toward herbal medicines. The twofold purpose of this research was to gain insight into the extent to which college students used herbal medicines as well as to examine the attitudes of health care professionals about herbal use (2004, p. 167). Both students and practitioners were given questionnaires. Eighteen hundred students at Rutgers University in New Jersey responded to this 18 question, anonymous survey through self-administration. Some questions were multiple-choice; some used the Likert-like scales of a one-to-five range from strongly agree to strongly disagree; two required lists to be written. The questions focused on demographics, herbal use, and general health. Forty health care practitioners from the Rutgers health services responded to eight questions about practices and beliefs regarding herb use, some multiple-choice and some in the one-to-five range scale mode (p. 167-168).

Overall, 51% of the college students used herbal medicines. Demographically, the median age was 21 years, with more women responding to the survey than men, and more women using herbs than men. Ethnically over 50% of whites, Asian Americans, and African Americans used herbs, and slightly less than 50% of Hispanics and all other ethnic groups used them. Of those students who used herbs, 34.2% could not name the herb they were using. Family and friends were cited as the greatest source for these students on advice about herb usage. Sixty-three point three percent of students who expected general health improvement reported experiencing that result. Ninety-two point two percent of students who expected symptom relief experienced that result. Sixty four point four percent achieved their goal of physical or emotional well-being; 21.1% reported no change and 3.8% of users had undesired side effects. Users were more likely to rate their health as good than non-users (2004, p. 169).

Forty of the 70 practitioners approached filled out the survey for a response rate of 57%. The health care practitioners (HCP who included registered nurses, nurse practitioners, physicians, pharmacists and mental health counselors) reported asking their patients about herb use some to most of the time. They advised herb use sometimes or rarely. The HCP used herbs themselves only sometimes or rarely. Of the 28 HCPs who reported recommending herbal therapy as part of a patient's treatment plan, 52.5% of the instances were in order to treat specific symptoms. Other recommendations were for well-being (35%), emotional symptoms (30%), and prevention of illness (30%). Seventy-five percent of HCPs responded positively when asked if they would like more professional education when it came to herbal medication (2004, p. 171-172).

These five studies concurred that communication between doctor and patient about complementary and alternative medicine use is lacking. This communication would be enhanced through increased physician knowledge concerning these alternative therapies.

### ***Reliable Research and Better Education***

In 2005 Clement, Williams, Khan, Bernard, Bhola, Fortune, Medupe, Negee and Seaforth reported on the issue of physicians' lack of knowledge of herbal remedies. They stated that there are safety issues that must be addressed relating to adverse effects and herb-drug interactions. Most western trained physicians are ignorant of risk and benefits of herbal remedies. These researchers conducted a cross-sectional survey using a questionnaire that was interviewer-administered. One hundred and ninety four public health care physicians from six public hospitals in Trinidad were interviewed (2005, p. 2). Of those 60.4% believed that herbal remedies were beneficial to health, 40.6% had used herbs in the past, and 76.8% were satisfied with the outcome. Although 27.1% of physicians recommended herb use to patients, only 15.1% could identify at least one herb-drug interaction (p. 3).

These researchers concluded that herbal remedy use was high throughout the world, and most patients self medicate with or without the knowledge of their physician. Educational intervention was recommended to deal with the contradiction that physicians showed a high level of acceptance and a low level of knowledge about herbs and herb-drug interactions (2005, p. 7).

Smith and Coyle (2006) addressed the belief that finding people to participate in CAM studies was difficult. The authors' concern in this study was the difficulty in

recruiting subjects for clinical trials of complementary and alternative medicine (CAM). They used data from five clinical trials on the efficacy of acupuncture and ginger to reduce nausea and vomiting in pregnancy. Particular attention was drawn to the recruitment strategies in these trials (2006, p. 1). Barriers to study participation identified included time restraints, invasiveness, privacy issues and low literacy, among others. The five trials were conducted at the Women's and Children's Hospital and the University of Adelaide.

The authors found that trials in CAM are not more necessarily more difficult to recruit to. Media promotion tends to peak interest, offering a low effort high yield response. They addressed possible barriers by offering flexible times for those participants with time constraints and using referrals by doctors to reassure fearful participants. They also offered acupuncture treatments at no cost. Ginger is already cheap to purchase, so this financial incentive was not evident in the ginger users. The authors concluded that there is need for more systematic strategies for recruitment and implementation of CAM studies to help successful running and timely completion of CAM research (2006, p. 4).

Standardized testing of herbal remedies is a continual concern among doctors and researchers. In 2006 Gegnier, Boon, Rochon, Moher, Barnes and Bombardier reported on a consensus meeting held with sixteen participants to develop recommendations for reporting randomized, controlled trials (RCTs) of herbal medicines. These recommendations were based on the need to elaborate on the 22-item CONSORT (Consolidated Standards of Reporting Trials) checklist already in place. The method used to extrapolate the recommendations was three-fold. Before the meeting was held,



participants were asked during a telephone interview to generate items for revision or addition concerning the CONSORT checklist. These participants included 5 with expertise in the method and reporting of RCTs, 4 pharmacognosy experts, 5 herbal medicinal experts, 1 expert in medical statistics, and 1 in herbal product manufacturing. These suggestions were then thematically grouped and e-mailed to each participant for review. Finally the actual meeting took place with fourteen of the participants present. Each item was presented and debated until consensus emerged. A draft of the summary report was circulated to all participants as well as to the wider CONSORT Group for input and revision (2006, p. 364).

No new checklist items were recommended, but 9 items were elaborated (2006, p. 366). A table was created to show the detailed recommendations and an example of good reporting for each recommendation. These elaborations included the use of more details when listing an herbal medicinal product name such as the binomial Latin name, common name, proprietary product name, manufacturer, and product authorization, if it exists. The table also elaborated on such items as the characteristics of the herbal product, the dosage regimen and description, the qualitative testing, the placebo group, and the practitioner (2006, Appendix Table p.w-71).

The authors hoped that these recommendations would be endorsed by journals that publish study results and by the authors conducting the research. They felt it imperative that reports of RCTs provide clear and complete descriptions of herbal interventions.

Another aspect of validating herbal remedies is found in the herbal texts used long ago. The information contained in these is valuable both as simple knowledge as well as

guides for researchers in directions to direct their energies. In 2004 Buenz, Schnepfle, Bauer, Elkin, Riddle and Motley discussed new technologies that are making these ancient texts and their information more accessible for researchers.

According to Buenz, et al., ethnobotany faces challenges from loss of traditional knowledge and laborious techniques. Historical herbal texts are becoming increasingly valuable as resources documenting traditional use of various species of plants as medicines. Up to this point, the methods of extracting and preserving this information have been cumbersome and time-consuming. However, using new bioinformatics data-mining systems with herbal texts holds great promise for identification of potentially helpful medicines (2004, p. 494).

While libraries have preserved ancient texts initially for their artefactual value, it had become apparent that these texts hold valuable information. For example, the authors pointed out that Gerard's *The Herball* contained references to 18 plants to date that have been starting points for pharmaceuticals. Up to this point, however, there had been no efficient method of extracting this information (2004, p. 494).

Herbal information has been detailed dating as far back as 3100 B.C. in ancient Egyptian and Sumerian texts. Unfortunately, it is impossible to identify with certainty the plants used. Greek data is more precisely documented in works attributed to Hippocrates, where only 11 of 257 plant-based drug descriptions remain unidentified (2004 p. 495). Recent advances in the field of data mining and bioinformatics is making it possible to efficiently extract the information from these texts. Originally, manually loading pages in a scanner would make a 20,000 page herbal text take 4 years to scan. New, automated systems achieve maximum scan rates of 1200 pages per hour. Several collaborative

projects around the world address the problem of accurately identifying plants from various descriptions in various languages. Semantic libraries exist for medical terminology and translation tools, data warehousing and search techniques are evolving rapidly (p. 497). Today, there are useful internet sites that can be used to locate names, authors and publication records for plant names such as *Tropicos* and *International Plant Names Index* (p. 495). The authors concluded that it is becoming easier to extract crucial and beneficial information from ancient herbal texts. The information in these tomes is invaluable to the future of medicine.

### ***Folk Remedies are Valuable Culturally and Medically***

Herbal information is not only passed down through historical herbal texts, but through families and cultures. Some people use herbal medicine or folk remedies that were taught to them by parents, grandparents, or other family members. This aspect of traditional herbal use will be looked at next. Folk remedies are used in this country by a variety of people. The following studies discuss folk remedy use in Southern Appalachia and in urban black communities.

Information regarding folk remedies including herbal medicines is accurately depicted in some works of well-researched fiction, according to Strain (2002). The authors in her study were chosen because they all wrote about the Appalachian regions and all included folk medicine in their narratives. All novels featured folk medicine lore carefully researched and the authors portrayed this use accurately and with sensitivity to the significance of folk medicine to the communities they depict (2002, p. 25). The time period spanned over one hundred years and was divided into three eras to correspond to significant changes in medical knowledge. The first era explores authors' works written

in the 1890s through the 1930s during the rise of official medicine, secondly the 1940s through the 1960s during World War II industrialization and the large growth in biomedicine, and lastly the 1970s to the present with its DNA research, cloning experiments and the backlash against all this towards a return to folk medicine. The region described as Southern Appalachia is roughly an area of about 110,000 square miles that includes northeastern Tennessee, eastern Kentucky, western North Carolina, northern Georgia, and northeastern Alabama (2002, p. 8-9).

These may be another source used in gleaning knowledge of herbs. Strain's purpose in her study of selected works of fiction depicting folk medicine practices in the Southern Appalachian region of the United States was to show the important ethnographic role the seven selected authors played with their accurate depictions of folk medicine beliefs and practices. This is significant, according to Strain, because of the current rise in distrust of official medicine by patients and the return to the medical folkways of the past.

The methodology used in this research was a close critique of each of the ten works of fiction compared with the extensive information found by Strain that compiled data on folk remedies and customs used throughout the three time periods studied. The works and authors included *The Hunter's Horn* (1949) by Harriette Arnow, *Cold Mountain* (1997) by Charles Frazier, *The Glass Window: A Story of the Quare Women* (1925), *The Quare Women* (1923), and *Sight to the Blind* (1914) by Lucy Furman, *The Hawk's Done Gone* (1940) by Mildred Haun, *Christy* (1967) by Catherine Marshall, *The Spirit of the Mountains* (1905 facsimile) by Emma Bell Miles, and *Oral History* (1983) by Lee Smith (2002, p. 136-147). These works included extensive information on folk

medicine practices, some from a sympathetic and others a cynical viewpoint. The common thread was the accuracy of the folkloric information in these novels as shown through scholarly books, journals and studies cited throughout Strain's research. According to Strain, the end result of these works of fiction was that they both preserve the folk medicine knowledge of the region and remind the reader of the cultural heritage which continues to influence the future. As a bonus, they were also far more readable than the scholarly works that also include this folkloric information (p. 133-134).

Strain concluded that certain folk remedies did exist and were used in Appalachia, and that the authors studied accurately portrayed these remedies. Further, that understanding these beliefs is important as our country transitions from the dependence on official medicine back to use and knowledge of the traditional methods in our past. Also, Strain offered the perspective that science, with its fashions and fads, may become tomorrow's folklore. While Strain stated that people are returning to more holistic models as they attempt to cope with the complex, technological world in which they live, the following two studies using African Americans as subjects would argue that folk remedies never went away. These studies found a high percentage of use of traditional folk remedies by African Americans, contradicting the findings of Eisenberg et al. (1998) and Kennedy (2005).

In 1998 Plotkin and Post studied the prevalence and types of folk remedies (FR) used in the inner city to determine population utilization and attitudes towards discussing FRs with physicians. In their study, 71 patients using the inner city ambulatory clinic in New Orleans, Louisiana were interviewed. Demographic and medical information was collected from the patients (1998, p. 795). Based on this information, the authors

determined that 59% of the sample used at least one folk remedy, and 41% denied ever using one. There was no correlation shown to age. Folk remedies could be divided into two basic groups: food product and household product. Some of the more common remedies involved garlic, honey, corn starch and steam. None were considered harmful. Effectiveness was cited as the main reason the remedies were used, though some mentioned low cost. The majority of patients learned of folk remedies from a family member. Eighty-five percent said they would be comfortable talking to their physician about their folk remedy use (p. 796). The authors concluded that folk remedy use was very common outside the clinic and hospital. Discussing folk remedies with their patients in a nonjudgmental fashion may help doctors be more effective in their medical care (p. 798).

In a similar vein, Smitherman, Janisse and Mathur (2004) sought to identify folk remedies used for black children in Detroit, Michigan, to treat fever, colic, and teething. Interviews were conducted with caregivers of children two years old or younger who were patients at the pediatric clinic in the Children's Hospital of Michigan. One hundred seven interviews were completed with caregivers of healthy black children. The survey consisted of 30 yes/no questions and nine open-ended questions concerning knowledge and use of remedies for fever, teething and colic. Each participant was familiar with the use of folk remedies. Most learned this from their mothers or grandmothers. Older parents were more likely to use these remedies than younger parents. All participants confirmed using at least one herbal or food based remedy in treating their children (2004, p. e297-e298).

The use of folk remedies was attributed more to the believed effectiveness and traditional aspects of use than to the historical association of folk remedies to lack of access to health care and language and cultural barriers. They have become part of our culture. Folk remedies in this study consisted of herbs, food products, household items or manipulative practices such as bathing or walking (2004, p. e299).

The folk remedy users in this study used them in conjunction with, not a replacement to, conventional medicine. The use was considered to be culturally based. Physicians should be aware that patients are using these remedies, both to educate them if possible drug interaction dangers exist, as well as to further understand and better treat their patients (2004, p. e303).

### ***Summary***

Complementary and alternative medicine (CAM) use is prevalent in this country, as concluded in studies by Eisenberg, et al (1998) and Kennedy (2005). Both studies used data from the National Health Interview Survey to show the widespread use of herbal medicine and the lack of communication between patients and doctors regarding CAM use. In 2002 18.9% of adults in the U.S. used herbal products and supplements. User rates were highest in women, middle-aged adults, some racial minorities, residents of the Western U.S., college graduates and people in excellent health. Less than one third of users tell their physician about their herb use (Kennedy 2005, p. 1855). Though these studies focused on the adult, noninstitutionalized, civilian population, Sadah and Eberhardt (2006) used the same data source to study adults suffering from chronic pain, and found that CAM use was high in this population also, and communication with health care providers was low. College students were shown by Ambrose and Samuels (2004) to

use herbal preparations recommended by friends or family, even if they knew nothing about the therapy. Over 50% of the college students were using some sort of herbal preparation, while over one third of these students could not name the herb used. Most herbal information came from family and friends, and students expressed that practitioners should include herbal information when discussing treatment options. HCPs are beginning to change their attitudes and accept the integration of herbal therapies into traditional practice. They expressed a desire for more professional education on alternative therapies.

Adolescents, according to Klein et al (2005) knew little about herbal remedies and claimed they would not tell their physicians if they were using them. More information about CAMs appears to be necessary for both the general population and the health care professionals who treat them.

These five studies would indicate that herbal remedy use in this country is common, both for chronic and acute conditions. Though used commonly, people are not always educated as to the effects and indications of herbs. Health care practitioners are frequently not told about this usage by their patients. These practitioners need more education on the uses and possible drug interactions of common herbal remedies and must communicate more openly with their patients. Standardized, reliable research is necessary for formal validation of patients' CAM use.

Work is being done to address the issues of both information sources and research techniques in validating herbal medicine efficacy. Clement et al. (2005) pointed out the need for educational intervention for physicians regarding herbal remedies. Smith and Coyle in 2006 stated that finding participants for CAM studies was not as difficult as



researchers feared. The proactive work of Buenz et al (2004) and Gagnier et al (2006) will have a positive effect on the future of herbal medicinal research and study.

Standardizing research criteria and technology advancements are both great achievements made toward furthering the validity of herbal medicines. The use of technology in Buenz et al's study is exciting for herbal information seekers as it promises to make the information contained in ancient herbal texts readily and efficiently available.

As some researchers focus on the information in old herbals, the folk remedies that are passed down orally through the generations are also being studied and put to paper. Whether in urban black communities as studied by Smitherman et al. (2004) and Plotkin and Post (1998) or in works of fiction (Strain, 2002) folk remedies are alive and well in the United States. They are an important part of our culture, and the need for accurate information and enjoyable literature pertaining to herb use is evident from this research. Perhaps exposure and education about herbal remedies at an earlier age would be appropriate.

## **Chapter 3**

### **Procedures**

#### ***Problem/Purpose***

This project was the production of an herbal remedy ABC book. The plants represented were ones that are easily accessed in this country, and shown in at least two established herbals to have medicinal benefits. Though an ABC book is generally written for young children, Chaney (1993), and Yopp & Yopp (2000) contended that they have value as a resource for older readers as well.

An alphabet book can be a captivating venue for learning new information. Chaney (1993) suggested that alphabet books have instructional benefits for students aged 8-11 (p. 96). The format renders them user friendly, the pictures are typically engrossing and the content is thematically presented and often offers a solid introduction to a topic and/or multicultural awareness (p. 97). “Readers of all ages, abilities and circumstances can obtain a multitude of benefits from alphabet books” (p. 101).

Yopp and Yopp (2000) contended that children would benefit from more exposure to informational text. They stated that exposure to a variety of text structures and features found in informational texts in early childhood may help thwart the fourth grade slump of reading level that typically occurs (p. 412). Informational alphabet books were specifically discussed by Yopp and Yopp as being supportive to the development of language, vocabulary and context skills in young, intermediate and middle-grade children (p. 413-414). They state:

Informational alphabet books provide opportunities for young readers to interact with informational texts, exposing them to text features and

structures (other than narrative) as well as to specialized knowledge and vocabulary. In addition, they provide information on topics that may arouse curiosity, spark questions, and serve as catalysts to language and literacy. Further, informational alphabet books may facilitate young readers' emerging literacy understandings such as alphabet knowledge, sound-symbol correspondences, concepts about print, and phonemic awareness (Yopp & Yopp, 2000, p. 416-417).

An herbal alphabet book will benefit young children and older readers. People in this country use herbal remedies frequently, herbal remedies are being actively researched and herbal remedies are a part of this country's heritage Therefore an herbal ABC book would be a significant addition to a children's library.

### ***Audience***

This herbal alphabet book was written with an elementary aged audience in mind. It can be useful, however, to all ages. The information is significant to anyone who has little prior knowledge of using plants for healing, and can be an enjoyable review for those who already have experience with healing plants.

### ***Tools***

This herbal ABC book was formatted in landscape and contains 32 pages. Each left hand page shows an illustrated facsimile of two pages of an open herbal ABC book. The right hand side of the alphabet book contains a simple storyline of a young boy helping his stuffed animal to feel better using the plants his family members have told him about. This structure is maintained throughout the book. The *herbal* side of the spread consists of an ornate letter and a plant name or herbal agent that begins with that

letter. A brief description of the plant's common medicinal use is included, and a drawing of the plant is in the center of the herbal page. Two of these herbal pages are on each left hand page of the book. The right hand side consists of the storyline and colored illustrations about Darius, a young boy whose stuffed animal is feeling under the weather. Darius recalls some of the healing plants his mother, father and grandparents have told him about, and how to make simple medicines. There is a border of herb sketches surrounding the right hand pages. This herbal ABC book contains both informational and narrative text.

### ***Procedures***

The creation of this alphabet book proceeded with the following steps:

1. Listed the plants and herbal information that will appear on each page of the "herbal text" portion of the book. For each piece of information, two independent herbals were cited. These citations appear as a bibliography at the end of the book.
2. Drawings of each of these plants or other substances, such as olive oil as a base for salves or water as a base for teas were made by the illustrator.
3. Laid out the pages of herbal text with drawings and information.
4. Wrote the specific storyline to accompany the right hand side of the book. Darius tries to make his stuffed animal feel better using plants he has been told about by various relatives.
5. Used line drawings and colored pencils to illustrate the storyline. The author's sister, Cindy Lane, drew the illustrations.
6. Collated the herbal text side of the book with the storyline side.

7. Created a title page.
8. Created a cover.
9. Prepared a bibliography of herbals consulted.

**Chapter 4****Project**

*Project accompanies this paper.*

## Chapter Five

### Conclusions and Recommendations

#### *Summary*

From Neanderthal to New Age times, plant medicine has been shown to be used by people seeking relief from ailments. There is a lack of information available for children to learn about the simple herbal remedies used by their ancestors even though herbal remedies are commonly used in this country. These plant remedies are both culturally and medically significant. People use herbal medicine to a great extent without consulting medical professionals. Therefore, a research based herbal ABC book would be a significant addition to children's literature in this country, both as information for children and adults, and as a conversation starter in the medical practitioner's office.

As some researchers focus on the information in old herbals, the folk remedies that are passed down orally through the generations are also being studied and put to paper. Whether in urban black communities as studied by Smitherman et al. (2004) and Plotkin and Post (1998) or in works of fiction (Strain, 2002) folk remedies are alive and well in the United States. They are an important part of our culture, and the need for accurate information and enjoyable literature pertaining to herb use is evident from this research. Perhaps exposure and education about herbal remedies at an earlier age would be appropriate.

The purpose of this research project was to add to the information available for children and adults to learn about common herbs that can be safely used for every day ailments. As was discovered during the research process, nothing like this is currently available in popular publication. The best way to remedy this was to create an ABC book

featuring commonly used medicinal herbs and ingredients presented alongside a simple storyline of a little boy remembering the remedies he had been taught by his family to help his stuffed animal feel better.

The *herbal* side of the book is written in a rather clinical, high level reading manner – meant to be read and interpreted to the youngest readers by their parents. There is a glossary in the back containing the words that may not be known by those not knowledgeable in herbal medicine-making. The drawings of the herbs are accurate yet whimsical so as to be attractive to children. The font and paper style reflect the tone of the herbal which is that of an old-fashioned tome.

The *storyline* side of the book is written with simple words, most of it being a narrative of Darius, a six year old boy, talking to his stuffed lizard or his friend, Carrie. Seven of the herbs from the herbal are mentioned by Darius, and one more is pictured in the story. He mentions a variety of relatives from whom he has learned the information he imparts. The conclusion of this story is that sometimes a friend is all one needs to help one feel better. At the very end, the two stuffed animals come to life and it is implied that they are about to embark on an adventure. This can spark any child's imagination to create a storyline for LJ and Punky. The illustrations for this storyline are colorful, but the human characters remain black and white. The less coloring they have, the more they can represent any child.

The unique layout of the book, with the herbal book view on one side and the storyline on the other, was the original idea that led to the conception of the book. The choosing of the herbs for each letter was the first step in the process of creating this book. Once that was done, each item was researched and found in two respectable herbals and



the information found was cut down to simple summaries. The author already knew much of this information, as she has been using and making herbal remedies for about 20 years. She apprenticed under Rosemary Gladstar, an herbalist and teacher widely known in the herbal community as the Godmother of the Herbal Renaissance. The drawings of the herbs are based on a combination of living plants, photographs, and other herbal illustrations. The illustrator has a degree in fine arts and keeps an informal studio in her house from which she works on drawings and paintings from time to time. She, too has a long history of interest in herbs and has an extensive wild garden at her home.

The storyline is based on the criteria of a child to whom many children could relate. He knows a little about herbs from various family members. These remedies could be from European, African- American, Hispanic or Native American traditions. The herbal remedies of Asia, such as Ayurvedic or Traditional Chinese Medicine, are far more complicated, but people schooled in these traditions could still relate to the forms of remedies such as teas, tinctures and poultices.

The author and illustrator together laid out each page. The author chose and placed the text of each page while the illustrator drew the pictures and both of these parts merged to create each page. Each page was photocopied onto special paper that was sepia-toned on one side and white on the other. These pages were aligned into the book, and the cover page and dedication were added.

The author has had substantial interest shown for this book by parents with whom the concept was discussed. Those few who have seen the finished product are unanimous in their desire to procure a copy for their families. Because of this interest, the process of publication will be pursued after this project is complete.

## *Conclusions*

The history of herbal books is fascinating. The importance of plant medicine throughout time is apparent when reviewing this history. Although much of medical practice in the United States today utilizes expensive, lab-produced chemicals to combat disease, the lay person is more and more likely to look for natural, less expensive and gentler products to serve his or her needs.

People need and deserve to be educated about simple herbal remedies that can be used for common ailments. They read about them in popular magazines and purchase them at their local variety store. What is missing in this process is the connection to the earth and the natural world of which all are a part. It is a healing process to see a plant, learn about its healing properties and make a simple tea by infusing these living organisms in water. It is also beneficial for people to recognize that their ancestral heritage includes herbal folk remedies, regardless from which nationality they hail.

ABC books are a great way for children to learn new information in a non-stressful way while honing their alphabet and beginning reading skills (Yopp & Yopp, 2000). The information in the *Herbal Remedy ABC Book* includes facts about plant uses, their Latin names, simple ways to make remedies, and an introduction to the historical use of plants. It also provides a positive message of people helping others to feel better.

Those who read the *Herbal Remedy ABC Book* will benefit from the simple format and information and may recognize common remedies, in plant form, from the names on capsule boxes at the pharmacy. However, from this book, they may feel a more organic connection through the simple, colorful illustrations and text that can easily be shared with the whole family. Whether this book is an introduction or a review for the

reader, it is the hope of the author that they will be inspired to learn more about herbal remedies, plant medicine, and a more natural, less stressful way of life.

### ***Recommendations for further study***

Where is all the literature on herbal medicine in children and young adult publications? Studies show that parents are using home remedies on children, and young adults are buying and using herbal supplements. Though referred to as complementary medicine, meaning they accompany or complement conventional medicine products, people are neglecting to inform their medical care providers of their usage. The care provider may very well be unknowledgeable of the effects of these supplements. There are good sources of reliable information on herbal use in publication, but more should be aimed at the children and young adult reader. Herbs are commonly used as remedies in this country for everyday ailments and chronic conditions, so more information should be available at a younger age about these safe, common plant medicines. Sharing the reading experience of this book between parent and child can enhance both participants' enjoyment and interest in the subject and contribute to the family bond.

It is recommended by this researcher that more literature be written in a user friendly manner for children, young adults and families to learn about and enjoy the traditional healing art of herbal medicine. Health care providers who address the common use of alternative therapies with their patients can benefit from additional professional literature and research on these topics as well.

## Reference List

- American heritage college dictionary* (4<sup>th</sup> ed.). (2007). Boston: Houghton Mifflin.
- Ambrose, E., & Samuels, S. (2004). Perception and use of herbals among students and their practitioners in a university setting. *Journal of the American Academy of Nurse Practitioners*, 16(4), 166-173.
- Associated Press (2005). *Medical schools embracing the healing arts: Universities respond to interest in acupuncture, herbal remedies*. Retrieved on February 6, 2007 from <http://www.msnbc.msn.com/id/8048627/print/1/displaymode/1098/>
- Balch, P. (2002). *Prescription for herbal healing*. New York: Avery.
- Buenz, E., Schneppe, D., Bauer, B., Elkin, P., Riddle, J., & Motley, T. (2004). Techniques: Bioprospecting historical herbal texts by hunting for new leads in old tomes. *Trends in Pharmacological Sciences*, 25(9), 494-498.
- Buhner, S.H. (1999). *Herbal antibiotics: Natural alternatives for treating drug-resistant bacteria*. Pownal, VT: Storey Books.
- Chaney, J.H. (1993). Alphabet books: Resources for learning. *The Reading Teacher*, 47(2), 96-102.
- Clement, Y., Williams A., Khan, K., Bernard, T., Bhola, S., Fortune, M., Medupe, O., Nagee, K., & Seaforth, C. (2005). A gap between acceptance and knowledge of herbal remedies by physicians: The need for educational intervention. *BMC Complementary and Alternative Medicine*, 5(20), 1-12.
- Culpeper, N. (1814). *Culpeper's complete herbal and English physician* (reprint ed., 1991). Glenwood, IL, Meyerbooks.
- Eisenberg, D., Davis, R., Ettner, S., Appel, S., Wilkey, S., Rompay, M., & Kessler, R. (1998). Trends in Alternative Medicine use in the United states, 1990-1997: Results of a follow-up national survey. *Journal of the American Medical Association (JAMA)*, 289(18), 1569-1575.
- Gagnier, J., Boon, H., Rochon, P., Moher, D., Barnes, J., & Bombardier, C. (2006). Reporting randomized, controlled trials of herbal interventions: An elaborated CONSORT statement. *Annals of Internal Medicine* 2006(144), 364-376.
- Gevitz, N., (1988). *Other healers: Unorthodox medicine in America*. Baltimore, MD: The Johns Hopkins University Press.
- Gladstar, R. (1993). *Herbal healing for women*. New York: Fireside.

- Grieve, M. (1931). *A modern herbal*. New York; Dover Publications.
- Griggs, B. (1991). *Green pharmacy: The history and evolution of western herbal medicine*. Rochester, VT: Healing Arts Press.
- Hatfield, G. (2003). *Encyclopedia of folk medicine: Old world and new world traditions*. Santa Barbara, CA: ABC-CLIO.
- Hoffman, D. (2003). *Medical herbalism: The science and practice of herbal medicine*. Rochester, Vermont: Healing Arts Press.
- Kennedy, J. (2005). Herb and supplement use in the US adult population. *Clinical Therapeutics*, 27(11), 1847-1856.
- Klein, J., Wilson, K., Sesselberg, T., Gray, N., Yussman, S. & West, J. (2005). Adolescents' knowledge of and beliefs about herbs and dietary supplements: A qualitative study. *Journal of Adolescent Health*, 37(2005), 409.e1-409.e-7.
- Mayoclinic.com (2007). Complementary and alternative medicine. Retrieved February 2, 2008 from <http://www.mayoclinic.com/health/alternative-medicine/PN00001>
- Merriam-Webster's collegiate dictionary* (11th ed.). (2007). Springfield, MA: Merriam-Webster.
- Navarra, T. (2004). *Encyclopedia of complementary and alternative medicine*. New York: Facts on File; New Ed Edition.
- Pela, R. (2003). The path to Weilness. *Psychology Today*, 36(6), 54-65.
- Plotkin, S., & Post, R. (1998). *Folk remedy use in the inner city*. New Orleans, LA: Department of Medicine, Tulane University School of Medicine and Louisiana University School of Medicine.
- Saydah, S., & Eberhardt, M. (2006). Use of complementary and alternative medicine among adults with chronic diseases: United States 2002. *The Journal of Alternative and Complementary Medicine*, 12(8), 805-812.
- Smith, C., & Coyle, M. (2006). Recruitment and implementation strategies in randomized, controlled trials of acupuncture and herbal medicine in women's health. *Complementary Therapies in Medicine*, 14(1), 81-87.
- Smitherman, L., Janisse, J., & Mathur, A. (2004). The use of folk remedies among children in urban black community: Remedies for fever, colic and teething. *Pediatrics*, 115(3), e297-e304.

Strain, C. (2002). *Folk medicine in Southern Appalachian fiction: A thesis presented to the faculty of the Department of English*. East Tennessee State University.

Yopp, R.H., & Yopp, H.K. (2000). Sharing informational text with young children. *The Reading Teacher*, 53(5), 410-423.